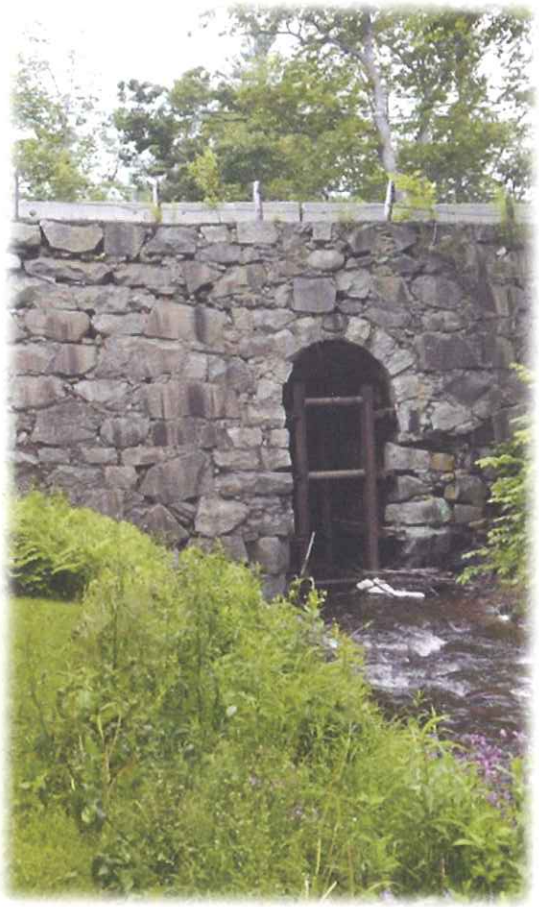
Technical and Price Proposal

STACKPOLE CREEK BRIDGE DESIGN/BUILD

SIMPSON ROAD, SACO, MAINE



Submitted By:
Maritime Construction & Engineering
Shawn Toohey
49 Pine Hill Road
Cape Neddick, ME 03902
shawn@maritimece.com

Baker Design Consultants
Barney Baker, PE
7 Spruce Road
Freeport, ME 04032
b.baker@bakerdesignconsultants.com

Submitted to:
City of Saco
City Hall
300 Main Street
Saco, ME 04072

Date:
March 23, 2015

BAKER DESIGN CONSULTANTS
Civil, Marine and Structural Engineering

June 21, 2012

Attn: Angela Blanchette, City Engineer
City of Saco
300 Main Street
Saco, Maine 04072

Subject: **Stackpole Creek Bridge Design/Build**
Simpson Road; Saco, Maine
Maritime Construction & Engineering/Baker Design Consultants

Dear Ms. Blanchette,

The team of Maritime Construction & Engineering/Baker Design Consultants is pleased to present this proposal for the replacement of the Stackpole Creek Bridge in accordance with your Request for Proposals dated February 23, 2015. Our Team includes the following specialized subconsultants, suppliers, and subcontractors:

- R.W. Gillespie & Associates will provide geotechnical engineering and construction materials testing.
- Terrence J. DeWan & Associates will lead and facilitate a workshop with all interested parties involved with the final selection of bridge features and façade aesthetics.
- Contech Engineered Solutions is the manufacturer of proposed precast concrete bridge and wall sections that have been selected to provide a cost effective durable solution for bridge components.
- Coastal Masonry are specialists in the installation of stone walls and fascade systems that feature in the design solutions proposed for the replacement structure.

We have visited the site and studied the substantial body of work that has been undertaken to evaluate rehabilitation and replacement options for the existing bridge. Based on this analysis, we feel strongly that a replacement structure is the better option to provide vehicle access across Stackpole Creek at this location.

We are aware that there is a significant attachment to a Saco landmark that has faithfully provided access over Stackpole Creek for some 167 years. However, the existing structure is functionally deficient as a bridge lacking the necessary structural capacity for vehicle traffic and the necessary hydraullic capacity to prevent upstream flooding.

Our proposal presents 3 span arch and single span arch solutions for low maintenance structures that meet state and national bridge design standards. We know that we cannot replicate the unique and historical appeal of the existing bridge, but were inspired to include features (arches, stonework and grace) in the replacement options to capture the legacy of the site.

7 Spruce Road, Freeport, ME 04032 T: (207) 846-9724 Email: b.baker@bakerdesignconsultants.com

We look forward to the opportunity to share and present our design and construction program to City staff and the Stackpole Bridge Committee.

Sincerely,

BAKER DESIGN CONSULTANTS, Inc.

Barney Baker PE
Principal

MARITIME CONSTRUCTION AND ENGINEERING

Shawn Toohey
President

BJB
JN: 15013

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Team Members

TABLE OF CONTENTS

A. TEAM DESCRIPTION AND PROJECT UNDERSTANDING

1. TEAM DESCRIPTION

Maritime Construction & Engineering (MCE) of Cape Neddick, Maine and Baker Design Consultants (BDC) of Freeport, Maine have partnered to develop this proposal for the replacement of the Stackpole Creek Bridge, located on Simpson Road in Saco, Maine.

- Maritime Construction & Engineering has an extensive track record of constructing similar projects on time and on budget.
- Baker Design Consultants is a civil and structural engineering design firm with the necssary expertise and experience to complete and coordinate all design and construction support elements for the project.

Our Team for this Design/Build project also includes specialized subconsultants, suppliers, and subcontractors that supplement the Team's expertise:

- R.W. Gillespie & Associates (RWGA) will provide geotechnical engineering and construction materials testing. Headquartered in Saco, they add a local presence to the project team.
- Terrence J. DeWan & Associates (TJDA) are skilled landscape architects and planners. TJDA will lead and facilitate a workshop with all interested parties (City Staff, neighbors and the Stackpole Bridge Committee) involved with the final selection of bridge features and façade aesthetics.
- Contech Engineered Solutions is the manufacturer for the proposed precast concrete bridge and wall sections. They specialize in the manufacture of buried arch bridge structures and have an extensive portfolio of successful bridge installations in New England.
- Coastal Masonry (CM) are specialists in the instalation of stone walls and facade systems. They have the ability to reuse existing stone materials from the existing bridge (if this alternative is selected). Their skilled team of masons will take care to recreate a beautiful and functional finished structure.

The Team members stand alone as experts in their fields. Together, we will provide the City of Saco with the resources needed for a successful design/build project.

2. REPLACEMENT OPTIONS PRESENTED

The existing stone arch bridge is badly deteriorated, and is currently closed to vehicular traffic. We have visited the site and studied the substantial body of work that has been undertaken to evaluate rehabilitation and replacement options for the existing bridge.

Based on this analysis, we feel strongly that a replacement structure is the better option to provide vehicle access across Stackpole Creek at this location. We are aware that there is a significant attachment to a Saco landmark that has faithfully provided access over Stackpole Creek for some 167 years. However, the existing structure is functionally deficient as a bridge lacking the necessary structural capacity for vehicle traffic and the necessary hydraullic capacity to prevent upstream flooding.

A replacement bridge is an opportunity to provide a structure that meets MDOT and City standards for rural lane and shoulder widths. A larger (stream-smart) bridge opening eliminates scour and recurrent flooding upstream and improves the riverine corridor for fisheries and wildife.

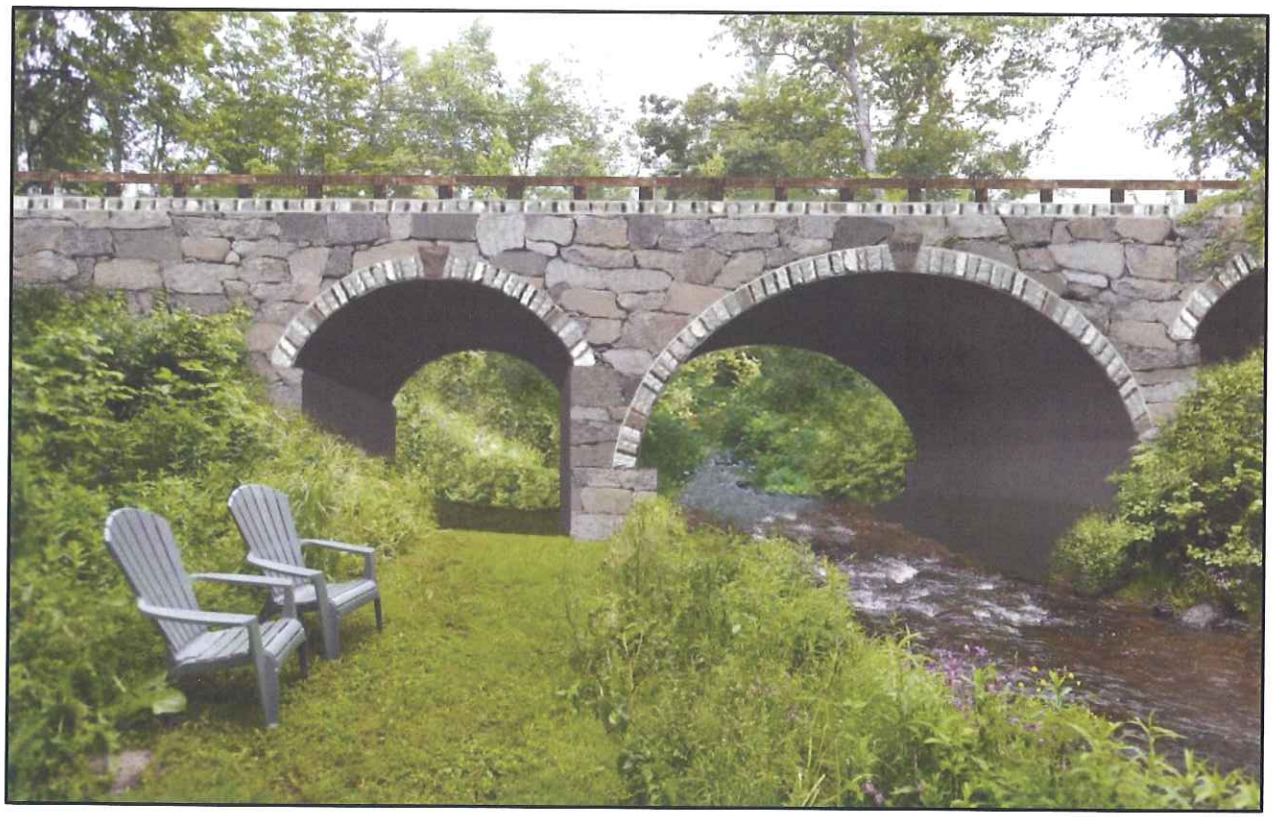
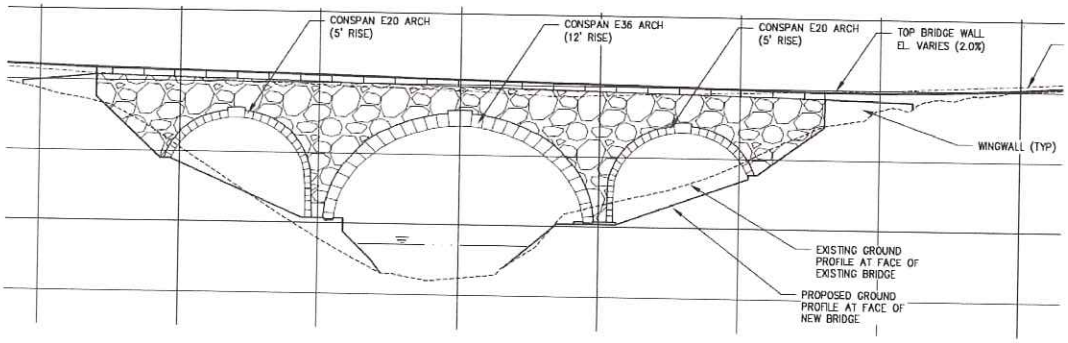


Photo Simulation of Proposed Three Span-Arch Bridge with Stone Facade using Existing Stone

In this proposal, we present multiple replacement options for bridge configuration and finishes to allow the City to strike a balance between cost, and aesthetics/features of the structure. All solutions are designed to be low maintenance structures with a design life that is consistant with state and national standards. We know that we cannot replicate the unique and historical appeal of the existing bridge,

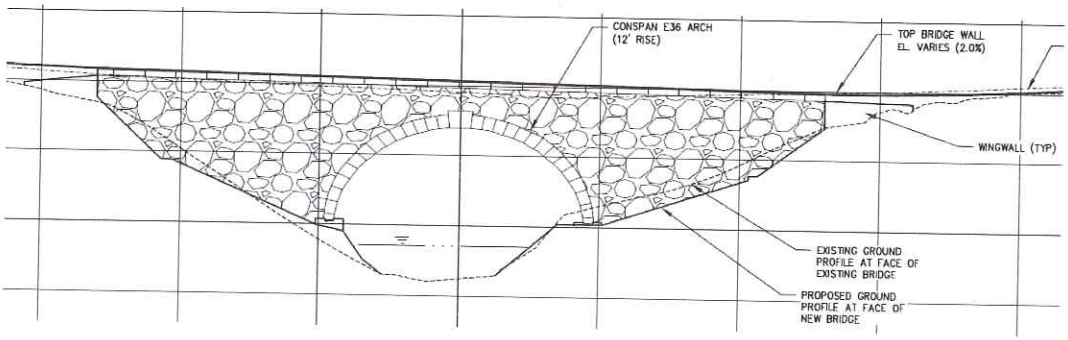
but were inspired to include features (arches, stonework and grace) in the replacement options to capture the legacy of the site.

A **three span arch bridge** is the preferred solution because it opens up the valley to the benefit of fisheries, wildlife and could provide for the future incorporation of a pedestrian/trail underpass.



Three Span-Arch Bridge Option

A **single span arch bridge** is more cost effective, becaused of the reduced structure. As is required on the existing structure, headwalls are extended from the opening in each direction to support the roadway above .



Single Span-Arch Bridge Option

Each option increases the existing bridge opening on Stackpole Creek from from 9-ft to 36-ft. The increase effectively eliminates upstream flooding due to the bridge restriction and creates an opening width that meets guidelines set by the Maine Department of Environmental Protection for a 'Stream-Smart' opening. In fact the wider opening allows the new arch foundations to be placed in 'the dry' and to remain above high flow conditions.

The Price Proposal includes three (3) options for the surface treatment of the headwalls for both the three span and single span arches for a total of six options provided in APPENDIX C.

- Formliner Wall Finish- The option provides a pattern (finistration) on the exposed concrete that is created with a form liner. Several examples are provided in Section E.2.
- Stone Veneer – A natural stone veneer is imported to the site and applied in a 4 to 6-inch layer on the face of the precast concrete.
- Reuse of Existing Stone – This option reuses the existing stone on site as a facade material. The goal is to recreate the existing wall layout around the new arch profile. This is the most expensive treatment because the stone size and thickness is the greatest combination of the three treatments.

3. PREFERRED DESIGN SOLUTION SUMMARY

The preferred design solution (Option 1C) is the three-span precast concrete buried arch bridge with a natural stone facade that reuses the existing stone. The bridge includes a 36-ft center span to achieve 1.2 x bankfull width, with 20-ft side spans that provide an open structure with aesthetic appeal, wildlife crossing, and potential for creation of a future pedestrian crossing to support a public trail system.

The bridge will utilize stone from the existing bridge to form a natural stone facade covering for the precast concrete walls. The proposed structure does not try to imitate the historic arch, but instead preserves and incorporates historic elements (stone and arch shape) with a modern design. In general, the replacement bridge proposed by the Team incorporates the following features:

- **A Beautiful Multi-Span Arch Structure with Historic Elements** – The multipspan arch structure incorporates a mix of modern and historic elements. It respects the past while looking forward ot the future.
- **Improved Roadway Design** – lane widths, shoulders, guardrails upgraded to modern standards. Vertical alignment adjusted to move low point off bridge for improved drainage of surface water.
- **Stream-Smart Crossing** – The bridge will be sized to minimize impacts to the stream, improving hydraulic passage and avoiding any potential barriers to fish and/or wildlife passage. Foundations for the bridge are set well clear of stream flow elevations, eliminating potential damage from winter freezing and scour in high velocity conditions.
- **Long-Life, Low Maintenance Structure** – The estimated design life for the proposed precast concrete structure is a minimum of 75 to 100 years in accordance with state and national bridge standards. Buried structures require little to no maintenance throughout their lifespan.
- **Trailway Connectivity** – While not part of the options proposed because of adjacent property impacts, the arch side spans could provide pedestrian/trail connectivity underneath the bridge to the upstream Horton Woods conservation area, or another public location. Additional design and funding would be required to extend the wing walls and adjust the side slope grades.

4. WHY SELECT OUR TEAM?

Highlights of the proposed design and team qualifications are provided below in the context of the selection criteria laid out in the Request For Proposal.

- **Structure Features**
    - We provide two (2) arch options, each with three (3)different facade treatments to allow the City to consider and participate in the selection of a replacement structure on the basis of cost and aesthetics.
    - Each configuration eliminates flooding an increases space for fisheries and willife crossing. It opens up the potential for future pedestrian crossing beneath the bridge.
    - A 36-ft main span satisfies an opening of 1.2 x bankfull width, for minimal impact to the stream and ease of permitting.

- **Project Schedule**
  - The use of prefabricated elements minimizes onsite labor to construct the bridge superstructure. Precast concrete arches and walls will be supplied by Contech.
- **Project Management Experience (similar projects)**
  - In 2014, Maritime Construction, Baker Design Consultants, and Contech partnered for a Design/Build bridge replacement in Falmouth. This project involved the replacement of a municipal pedestrian bridge at the River Point Conservation Area with a new 105' span prefabricated steel truss bridge. The bridge crosses a set of active railroad tracks, which required careful coordination with the railroad and electrical utility. The Team was selected in February and the bridge was placed and opened in November.

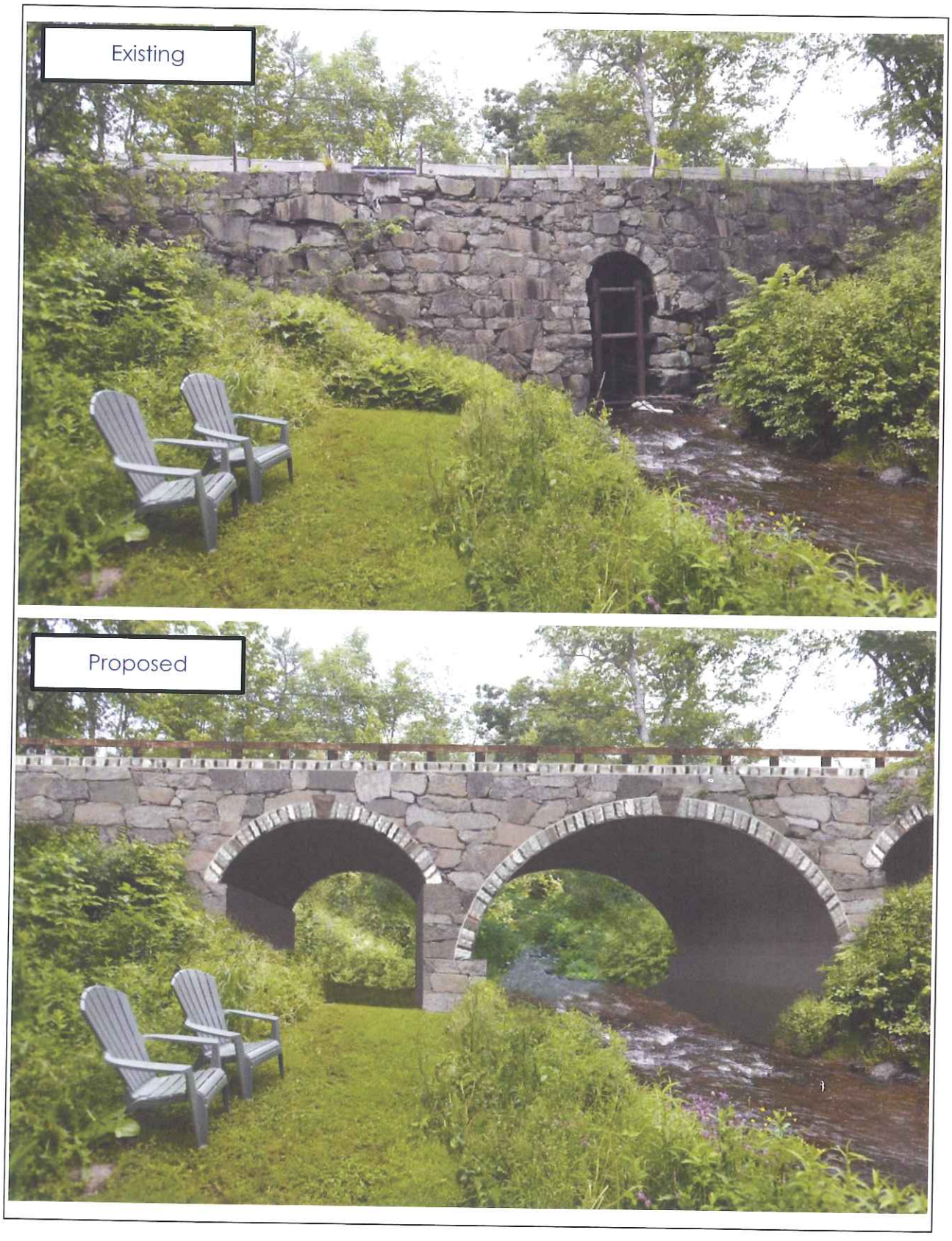
  - Contech has hundreds of precast arch bridges completed around the country, including multi-span arches, and walls faced with stone, both key elements of the proposed design.
  - MCE, BDC, and RWGA have all completed projects for the City of Saco in the recent past, and are currently working in Saco for other public agencies and private clients.
- **Impacts to Private Property**
  - Permanent structures are kept substantially within the Simpson Road ROW, however the ends of the wingwalls may protrude slightly over the ROW, pending completion of final design. Some grading will most likely be required beyond the ROW on all four corners of the bridge. This work is limited in area, and utimately will allow for improved slope conditions and a clear view of the new bridge through the clearing of adjacent brush and trees.
- **Geotechnical Design and Construction Approach**
  - R.W. Gillespie is the Team's geotechnical engineer. They are based in Saco and have completed many projects in the area. They will provide geotechnical recommendations and expertise to guide the design and construction approach.
  - The precast arch design utilizes the existing bedrock to resist the arch reaction forces. This allows for efficient foundation design. The location of the proposed foundations coincides closely with the available subsurface borings allowing for best use of avialable knowledge of the site for an efficient foundation design. Additional subsurface investigations may be conducted during the design phase if deemed necessary, and RWGA will be avialable to perform this work.
- **Previous Related Work for the City**
  - Several examples of past work by Team members either for or in the City of Saco are listed below:

  - MCE – Camp Ellis Beaching Pile Installation,Saco Island Site Work, Worthing Bulkhead/Pier/Floats, Dolloff Revetment/Pier
  - BDC – Camp Ellis Pier SHIP Grant Improvements
  - RWGA – Eastern Trail Route 1 Bridge & I-195 Retaining Walls, Saco River Bridge Rehabilitation, Exit 42 Bridge Rehabilitation

- **Total Project Cost (Construction & Engineering)**
  - This Design/Build proposal provides several pricing options for the bridge to allow the City flexibility in matching available funding with desired structure features and aesthetics. Costs for the design options are described in the proposal and the accompanying proposal forms.

- **Design Blended into Rural Setting**
  - The proposed arch design reuses the stone from the existing bridge to provide a familiar materiality that will blend with the rural setting, while providing a more open aesthetic and inviting experience.

A photosimulation of the proposed structure is presented in the following page that demonstrates the proposed bridge configuration and materials based on the preferred approach.


Existing
Proposed

B. PROJECT TEAM

Profiles of key members of the project Team are provided below. Resumes and qualifications are located in the Appendices.

1. MARITIME CONSTRUCTION

Maritime Construction is the contractor and will be responsible for all construction aspects. Key Personnel are Shawn Toohey, owner, and Deke Mackintosh, Project Manager.

2. BAKER DESIGN CONSULTANTS

BDC is the lead for design and will be the engineer of record for the project. The Principal and Project Engineer responsible for the project will be Barney Baker, PE, and Daniel Bannon, PE.

3. R.W. GILLESPIE & ASSOCIATES

RWGA are the geotechnical engineers for the project and will provide both geotechnical design and construction materials testing services. Erik Wiberg, PE will be the primary point of contact at RWGA.

4. TERRENCE J. DEWAN & ASSOCIATES

TJDA are the Team's Landscape Architects. They will provide visualization, design guidance, and meeting facilitation assistance. The work will be lead by David Truesdell, ASLA.

5. CONTECH ENGINEERED SOLUTIONS

Design and supply of precast concrete bridge elements will be completed by Contech Engineered Solutions.

6. COASTAL MASONRY

Coastal Masonry will perform the stone retaining wall facing installation for the preferred design solution. The work will be led by Jan Martin, owner of the company.

7. TEAM REFERENCES

Town of Falmouth
271 Falmouth Road, Falmouth, ME 04105
Jamie Mason, Town Engineer; (207) 699-5371, hmason@falmouthme.org
Lucky D'Ascanio, Parks & Recreation; (207) 781-5253, ldascanio@falmouthme.org

Town of Yarmouth 200 Main Street, Yarmouth, ME 04096
Steve Johnson, PE, Town Engineer: (207) 846-2401, sjohnson@yarmouth.me.us
Vanessa L. Farr, Town Planner: (207) 846-2401, vfarr@yarmouth.me.us

Maine Department of Transportation
16 State House Station, Augusta, ME 04333
Nate Benoit, Multimodal Program Manager; (207) 624-3420, nathaniel.benoit@maine.gov
Aurele Gorneau, Multimodal Project Manager; (207) 624-3553, aurele.gorneauii@maine.gov

Maine Bureau of General Services
77 State House Station, Augusta, ME 04333
Joseph Ostwald, Director of Construction: (207) 624-7353, joseph.ostwald@maine.gov
Mary Beth Van Keuren, Projects Engineer; (207) 624-7346, marybeth.vankeuren@maine.gov

C. SCOPE OF SERVICES

The scope of work for this project includes design and construction of a completed replacement bridge for the crossing of Stackpole Creek on Simpson Road in Saco, Maine in accordance with this proposal and the requirements of the RFP. The general tasks required to complete this work include:

- Background Data Collection
- Field Survey and Geotechnical Investigation
- Preliminary Design of all bridge elements and approaches
- Workshop Meeting with the Stackpole Bridge Committee and City Staff to discuss and finalize bridge features.
- Final Design
- Demolition and Removal of Existing Bridge
- Construction of New Bridge

The following items are not currently included in the scope of work or are completed by others as referenced.

- Design and Construction modifications that would be necessary to incorporate a pedestrian underpass. This work could be added, but requires further discussion with City staff and local property owners that are beyond the scope of this proposal.
- The City has indicated that they will be responsible for all regulatory permitting associated with the project that would include removal of the structure from eligibility for registration as an historical structure.
- The Team will coordinate construction requirements with existing overhead utilities. All costs associated with temporary and permanent relocation of utilities to accommodate construction is assumed to be the responsibility of the overhead utility.
- It is assumed that any costs associated temporary access on to private property or treatment of existing slopes on adjacent private property to accommodate the new bridge will be negotiated by and paid for the City.

D. SCHEDULE

An outline of the intended project schedule is provided below. This schedule is contingent on the City applying for and receiving all relevant permits in a timeframe that supports the schedule as presented.

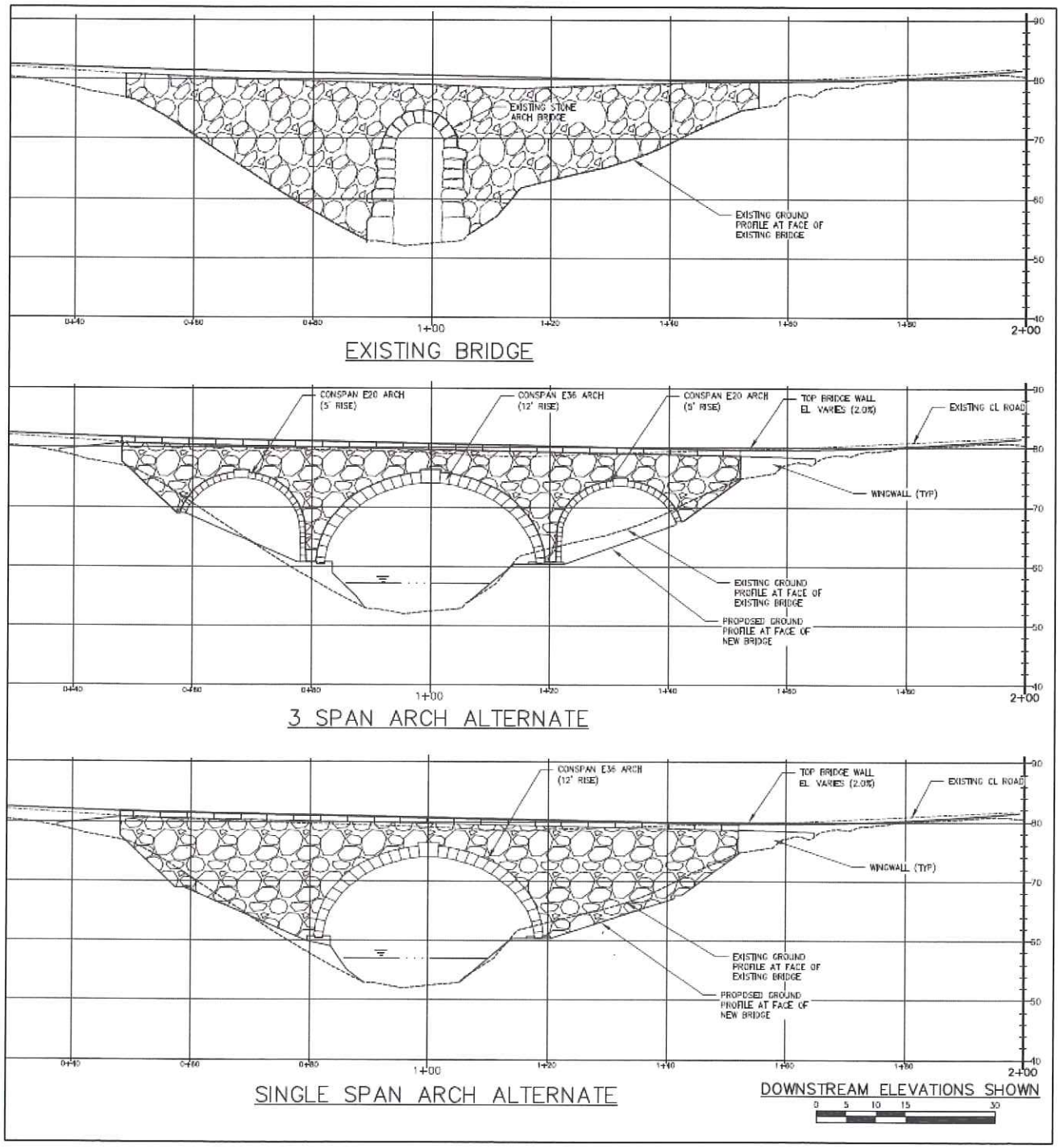
Work Item	Date
Contract Award	05/01/2015
Final Bridge Design Submission	05/25/2015
Contractor Mobilization	08/01/2015
Completion of any in-stream work	by 11/15/2015
○ *Based on ACOE in-stream work window*	
Installation of precast bridge sections	Oct-Nov, 2015
Backfill Bridge to road grade	by 12/31/2015
○ *Access across bridge possible for emergency personnel after this point*	
Finish grading, paving, landscaping	Spring 2016
Project complete and bridge open to traffic	5/15/2016

E. PROPOSAL COST OPTIONS

Separate Cost proposals are presented in APPENDIX C. The cost presented in the bid form C1 represents the design/build Team's preferred approach. Several additional cost options are presented below. Examples of the appearance of elements of some of the alternative designs are shown in the following section.

1. COST SUMMARY TABLE

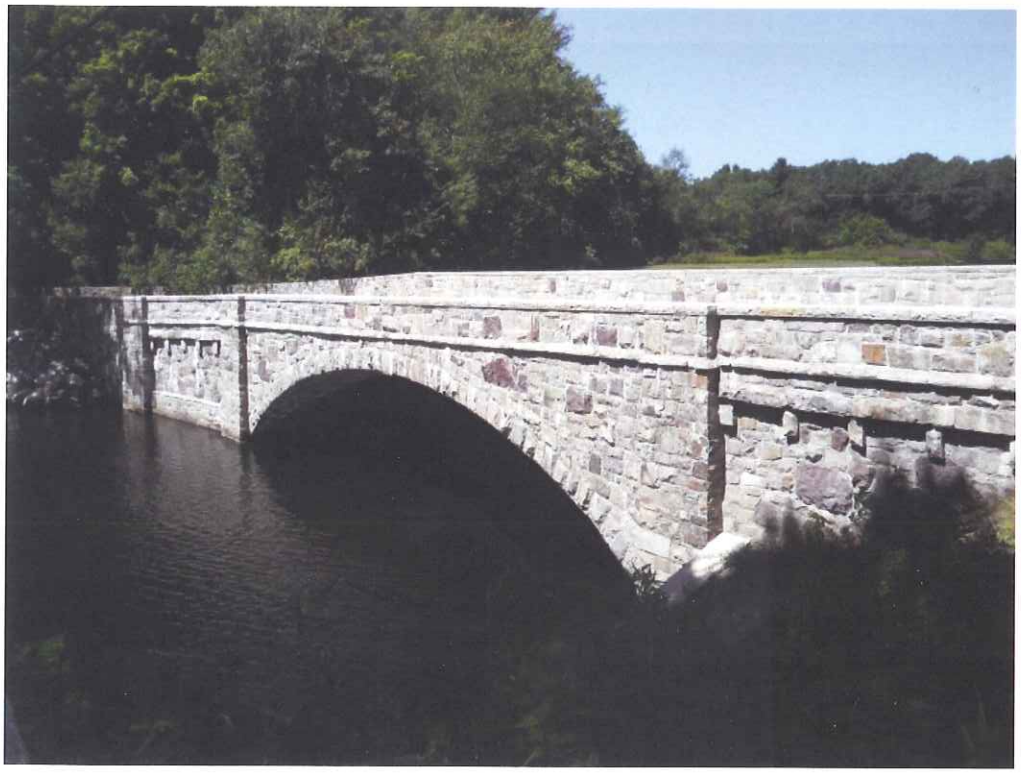
Design Option	Headwall Façade Treatment	Cost	Proposal Form (Sec. 5.C)
Existing Bridge		Rehabilitation Not Considered	NA
Three Span Arch *36' center span, (2) 20' side spans*	Reuse Stone from Existing Bridge	$1,457,800 Preferred Approach	C1
	Imported Veneer Stone	$1,284,500	C2
	Concrete Form liner Finish	$1,166,700	C3
Single Span Arch *36' center span*	Reuse Stone from Existing Bridge	$1,165,000	C4
	Imported Veneer Stone	$991,700	C5
	Concrete Form liner Finish	$856,600	C6


EXISTING STONE ARCH BRIDGE
EXISTING GROUND PROFILE AT FACE OF EXISTING BRIDGE
1+00
2+00
EXISTING BRIDGE
CONSPAN E20 ARCH (5' RISE)
CONSPAN E36 ARCH (12' RISE)
CONSPAN E20 ARCH (5' RISE)
TOP BRIDGE WALL EL VARIES (2.0%)
EXISTING CL ROAD
WINGWALL (TYP)
EXISTING GROUND PROFILE AT FACE OF EXISTING BRIDGE
PROPOSED GROUND PROFILE AT FACE OF NEW BRIDGE
3 SPAN ARCH ALTERNATE
CONSPAN E36 ARCH (12' RISE)
TOP BRIDGE WALL EL VARIES (2.0%)
EXISTING CL ROAD
WINGWALL (TYP)
EXISTING GROUND PROFILE AT FACE OF EXISTING BRIDGE
PROPOSED GROUND PROFILE AT FACE OF NEW BRIDGE
SINGLE SPAN ARCH ALTERNATE
DOWNSTREAM ELEVATIONS SHOWN
0 5 10 15 30

2. FORMLINER, VENEER AND NATURAL STONE FINISHES

Multi-span arch bridge at Acadia National Park, smaller side spans accent the larger main span, natural stone face

Multi-span precast concrete arch with veneer stone walls and accented arch with keystone



Precast concrete arch with veneer stone walls incorporating several architectural elements

Precast concrete arch with formliner walls

Appendix A
Form A

FORM A – TECHNICAL PROPOSAL SUBMISSION FORM

Simpson Road over Stackpole Creek

Maritime Construction & Engineering

(Name of Proposer)

The above Proposer hereby submits its Technical Proposal, consisting of the following items:
(Instructions: Specifically list all items submitted with the Technical Proposal, including number of drawings, number of narrative pages, etc. Attach or incorporate additional pages as necessary. Refer to the Project Requirements for additional instructions regarding Technical Proposal submission.)

Technical and Price Proposal		
	Cover Letter	2 pages
	Narrative	14 pages
	Forms A, B, C1-C6	15 pages
	Team Member Qualifications	36 pages
	Drawings	5 pages

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:
1. The Proposer has received and considered complete copies of Amendments numbered 1 through 2 .
2. The Design-Builder, Designer, other Major Participants and key personnel indicated by the Proposer in its Statement of Qualifications will be used on this Project in the same manner and to the same extent as so indicated.
3. All of the statements, representations, covenants and/or certifications set forth in the Proposal are complete and accurate as of the date hereof.
4. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
5. This Technical Proposal is responsive.
6. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: ____ .]

PROPOSER

3-23-2015

Date [Sign in Ink]

By: Shawn Toohey, Owner
[Name and Title Printed]

Appendix A
Form B

FORM B - PROPOSAL GUARANTEE FORM

KNOW ALL MEN BY THESE PRESENTS THAT MARITIME CONSTRUCTION AND ENGINEERING, LLC, of the 49 PINE HILL ROAD of CAPE NEDDICK and State of MAINE as Principal, and Surety, a corporation duly organized BOSTON INDEMNITY COMPANY under the laws of the State of SOUTH DAKOTA and having a usual place of business in ANDOVER, MA and hereby held and firmly bound unto the City of Saco in the sum of FIVE PERCENT OF BID *5&* for payment which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is such that if the Principal has submitted to the City of Saco, hereafter Owner, a certain proposal, attached hereto and incorporated as a part herein, to enter into a written contract for the construction of **the Simpson Road over Stackpole Creek** and if the Owner shall accept said proposal and the Principal shall execute and deliver a contract in the form attached hereto (properly completed in accordance with said proposal) and shall furnish bonds for his faithful performance of said contract and for the payment of all persons performing labor or furnishing material in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said proposal, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Signed and sealed this 19TH day of MARCH, 2015

WITNESS:

PRINCIPAL: MARITIME CONSTRUCTION AND ENGINEERING, LLC
By:
By: Suzanne M. Todd, owner
By:

WITNESS:
Trina Elsmar

SURETY: BOSTON INDEMNITY COMPANY
By: Nancy Castonguay
By: NANCY CASTONGUAY, ATTORNEY-IN-FACT
Name of Local Agency
SKILLINGS SHAW & ASSOCIATES

WITNESS:

PRINCIPAL:
By:
By:
By:

WITNESS:

SURETY:
By:
By:
Name of Local Agency

POWER OF ATTORNEY

Boston Indemnity Company

BG-213482

KNOW ALL MEN BY THESE PRESENTS, that **BOSTON INDEMNITY COMPANY**, a South Dakota Corporation, with its principal office in Andover, MA, does hereby constitute and appoint: Joline L. Binette, Melanie A. Bonnevie, Nancy Castonguay, Heidi Rodzen, Robert E. Shaw its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of **BOSTON INDEMNITY COMPANY** on the 3rd day of January, 2012 as follows:

Resolved, that the President of the Company is hereby authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed $ 2,500,000.00, Two Million Five Hundred Thousand dollars, which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed for good cause and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary & CFO, and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, **BOSTON INDEMNITY COMPANY** has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 3rd day of January, 2012.

BOSTON INDEMNITY COMPANY A SOUTH DAKOTA INSURANCE COMPANY

BOSTON INDEMNITY COMPANY

BY _____
Matthew J. Semeraro
President

ACKNOWLEDGEMENT

On this 3rd day of January, 2012, before me, personally came Matthew J. Semeraro to me known, who being duly sworn, did depose and say that he is the President of **BOSTON INDEMNITY COMPANY**, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.

AMY TAYLOR STATE OF TENNESSEE NOTARY PUBLIC DAVIDSON COUNTY

AMY L. TAYLOR
Notary Public- State of Tennessee
Davidson County
My Commission Expires 01-09-16

BY _____
Amy L. Taylor
Notary Public

CERTIFICATE

I, the undersigned, Secretary & CFO of **BOSTON INDEMNITY COMPANY**, A South Dakota Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Andover, MA, this 19TH Day of MARCH, 2015.

BOSTON INDEMNITY COMPANY A SOUTH DAKOTA INSURANCE COMPANY

BY _____
Phillip G. Lauer
Secretary & CFO

WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files and application for insurance of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

APPENDIX C – PRICE PROPOSALS

Design Option	Headwall Façade Treatment	Cost	Proposal Form (Sec. 5.C)
Existing Bridge		Rehabilitation Not Considered	NA
Three Span Arch *36' center span, (2) 20' side spans*	Reuse Stone from Existing Bridge	$1,457,800 Preferred Approach	C1
	Imported Veneer Stone	$1,284,500	C2
	Concrete Form liner Finish	$1,166,700	C3
Single Span Arch *36' center span*	Reuse Stone from Existing Bridge	$1,165,000	C4
	Imported Veneer Stone	$991,700	C5
	Concrete Form liner Finish	$856,600	C6

Form C-1
(Three-Span Arch, Reuse Stone)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

One million, four hundred fifty seven thousand and eight hundred dollars and zero cents
(Price in words – typed or printed in ink)

$ 1,457,800
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-1
(Three-Span Arch, Reuse Stone)

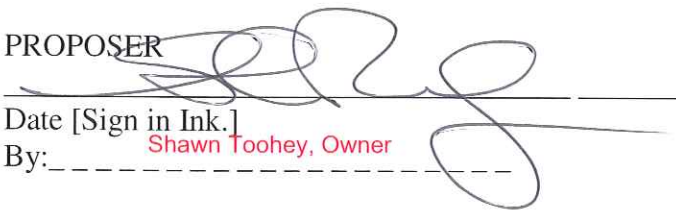
Appendix A
Form C

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

1. The Proposer has received and considered complete copies of Amendments numbered 1 through 2.
2. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
3. The Proposer's Price Proposal is complete and accurate and conforms to all applicable requirements of the RFP and Contract.
4. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: _____.]

PROPOSER



3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Form C-2
(Three-Span Arch, Stone Facade)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

One million, two hundred eighty four thousand and five hundred dollars and zero cents
(Price in words – typed or printed in ink)

$ 1,284,500
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-2
(Three-Span Arch, Stone Facade)

Appendix A
Form C

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

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2. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
3. The Proposer's Price Proposal is complete and accurate and conforms to all applicable requirements of the RFP and Contract.
4. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: _____.]

PROPOSER _____ 3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Form C-3
(Three-Span Arch, Formliner)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

One million, one hundred sixty six thousand and seven hundred dollars and zero cents
(Price in words – typed or printed in ink)

$ 1,166,700
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-3
(Three-Span Arch, Formliner)

Appendix A
Form C

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

1. The Proposer has received and considered complete copies of Amendments numbered _1__ through _2___.

2. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.

3. The Proposer's Price Proposal is complete and accurate and conforms to all applicable requirements of the RFP and Contract.

4. The person signing below is legally authorized to do so.

[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: _____.]

PROPOSER _______________________ 3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Form C-4
(Single-Span Arch, Reuse Stone)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

One million, one hundred sixty five thousand dollars and zero cents
(Price in words – typed or printed in ink)

$ 1,165,000
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-4
(Single-Span Arch, Reuse Stone)

Appendix A
Form C

By signing below, the above Proposer hereby certifies that to the best of the Proposer's knowledge and belief:

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4. The person signing below is legally authorized to do so.

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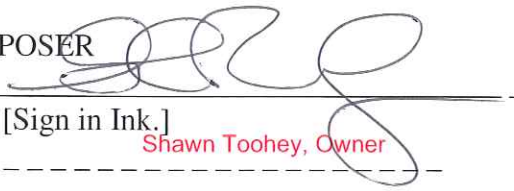
PROPOSER



3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Form C-5
(Single-Span Arch, Stone Facade)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

Nine hundred ninety one thousand and seven hundred dollars and zero cents
(Price in words – typed or printed in ink)

$ 991,700
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-5
(Single-Span Arch, Stone Facade)

Appendix A
Form C

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PROPOSER _____ 3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Form C-6
(Single-Span Arch, Formliner)

Appendix A
Form C

FORM C – PRICE PROPOSAL
Simpson Road over Stackpole Creek

Maritime Construction & Engineering
(Name of Proposer)

The above named Proposer hereby offers to perform and complete all Work specified or indicated in the Contract Documents in conformity with the same for the Price shown below.

LUMP SUM PRICE – BASE BID

Eight hundred fifty six thousand and six hundred dollars and zero cents
(Price in words – typed or printed in ink)

$ 856,600
(Price in numbers – typed or printed in ink)

Linear Foot Price

LUMP SUM PRICE – BID ALTERNATE # 1

Bid Alternate # 1 – This Alternate shall consist of excavating for and constructing a stabilized stone protected drainage ditch alongside Simpson Road up to a distance of 250 feet from the bridge abutments in either direction, and on either side of the roadway. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct the Stone Ditch Protection.

.

Six dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 6.00 / l.f.
(Price in numbers – typed or printed in ink)

PER LINEAR FOOT PRICE – BID ALTERNATE # 2

Bid Alternate # 2 – This Alternate shall consist of constructing additional length of full depth roadway reconstruction beginning at the bridge abutments and up to 250 linear feet in either direction. The additional length of roadway reconstruction shall use an 11-foot travel lane width with 3-foot gravel shoulders. Per linear foot price for this Alternate should include costs of furnishing all materials, labor and other incidentals necessary to satisfactorily construct this Alternate.

Eighty eight dollars and zero cents per linear foot
(Price in words – typed or printed in ink)

$ 88.00 / l.f.
(Price in numbers – typed or printed in ink)

Form C-6
(Single-Span Arch, Formliner)

Appendix A
Form C

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2. All representations and/or certifications required of the Proposer by the RFP and Contract are complete and accurate.
3. The Proposer's Price Proposal is complete and accurate and conforms to all applicable requirements of the RFP and Contract.
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[Any exceptions to the above certifications must be explained in detail on pages attached hereto. Number of pages attached, if any: _____.]

PROPOSER

3-23-2015

Date [Sign in Ink.]

By: Shawn Toohey, Owner

Maritime
Construction and Engineering, LLC

Representative Projects:

Owner: Town of Kennebunkport, ME
Project: Cape Porpoise Pier Replacement
Cost: $163,739
Description: Design/Build project for complete demolition and replacement of a 2200 sf commercial pier/restaurant foundation. Pier replacement included structural improvements to a granite quaywall, construction of a concrete foundation/retaining wall, pile driving. Project also included a change order at the request of the town to complete structural/bracing repairs to the adjacent fish pier.
Status: Complete 2004
Points of Contact: Owens McCullough, Sebago Technics, Inc. (207) 856-0277
Nathan Poore, Town of Kennebunkport (207) 967-4243

49 Pine Hill Rd, Cape Neddick, ME 03902 • Phone (207) 439-9831 • Fax (207) 439-9834

Maritime
Construction and Engineering, LLC

Owner: Maine Yacht Center
Project: Floating Breakwater Installation/Marina Reconfiguration
Cost: $241,350
Description: Maine Yacht Center was severely damaged during a Nor'Easter that occurred in May 2005. Maritime Construction was chosen to install a new concrete floating breakwater system purchased by Maine Yacht Center. This was the first such installation of its kind in the Northeast. Project included installation of approximately 1,000 feet of concrete breakwater, secured by close to a mile and a half of 2" chain and over 200 tons of sinkers. We also installed approximately 50 helical anchors and fabricated custom steel supports to stabilize the existing float system.
Status: Complete August 2006
Points of Contact: Brian Harris, General Manager, (207) 842-9000

Maritime

Construction and Engineering, LLC

Owner: York Harbor Marine Services
Project: Pier and Bulkhead Replacement
Cost: $295,100
Description: Replacement of a 125' long failed timber bulkhead with a new steel sheet pile bulkhead including new pile supported concrete deadmen. Project also included replacement of a timber pier structure with a new concrete filled steel pipe pile supported pier with precast concrete deck surface.
Status: Completed 2007
Points of Contact: Eric Lusty, owner (207) 363-3602
Duncan Mellor, engineer (603) 772-3706

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Maritime
Construction and Engineering, LLC

Owner: Chick's Marina, Kennebunkport, ME
Project: Bulkhead Replacement
Cost: $437,468
Description: Replacement of approximately 420' of failed timber bulkhead with new "Navy" style vinyl sheetpile bulkhead. Project included demolition of the old bulkhead and excavation and installation of new precast concrete deadmen and helical anchors.
Status: Phase 1 complete December 2005, Phase 2 complete April 2007
Points of Contact: Eric Katz, (508) 878-7665

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Maritime
Construction and Engineering, LLC

Owner: Bayley's Lobster Pound, Scarbourough, ME
Project: Bulkhead Replacement
Cost: $157,250
Description: Replacement of approximately 200' of failed timber bulkhead with new "Navy" style fiberglass sheetpile bulkhead. Project included demolition of the old bulkhead and installation of new helical anchor tiebacks.
Status: Complete June 2008.
Points of Contact: William Bayley (207) 883-4571

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Maritime
Construction and Engineering, LLC

Owner: Scott Worthing
Project: Bulkhead Replacement/Pier Construction
Cost: $108,000
Description: Replacement of 135' long failing concrete and timber bulkhead with a new vinyl sheetpile bulkhead as well as removal and replacement of approximately 150 tons of rip-rap.
Status: Complete June 2005
Points of Contact: Scott Worthing, Webhannett River Boatyard (207) 646-9649

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Maritime

Construction and Engineering, LLC

Owner: Adam Usdan
Project: Pier Construction
Cost: $98,500
Description: We completed this project as subcontractors to Custom Float Services of Portland, ME. Pier is approximately 165' long, stone-filled timber cribs founded on either ledge or driven piling. Superstructure is Corten Steel. Project included demolition and proper disposal of the existing pier.
Status: Complete January 2006
Points of Contact: Charlie Poole, (207) 772-3796

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Maritime
Construction and Engineering, LLC

Owner: Madokawando Landing Association
Project: Pier Construction
Cost: $159,955
Description: We completed reconstruction of this pier after it was destroyed by the Patriots day storm of 2007. Substructure consists of a mix of timber cribs, pinned piles and driven piles. Superstructure consists of 5"x 15" glue laminated timber stringers with CorrectDeck composite decking.
Status: Complete December 2007
Points of Contact: Robert Farnham, (207) 781-8214

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Maritime
Construction and Engineering, LLC

Owner: Proprietors of Union Wharf, Inc.
Project: Rehabilitation of Union Wharf
Cost: $206,524
Description: Repair/replacement of piles/cap along a 915' section of a busy commercial wharf. All work was completed with little disruption to activities along the wharf. We have also completed over $450,000 worth of residential pier construction projects for Custom Float, a sister company of Proprietors of Union Wharf.
Status: Phase 1 complete April 2003, Phase 2 complete November 2006
Points of Contact: Charlie Poole (207) 772-3796

49 Pine Hill Rd, Cape Neddick, ME 03902 • Phone (207) 439-9831 • Fax (207) 439-9834

Maritime
Construction and Engineering, LLC

Major Equipment

- 30’ x 90’ x 8’ spud barge.
- 27 Ton Link Belt LS98 Crawler Crane w/ 70' of boom (to be replaced w/ 60 ton crane 2008).
- 400 HP 26' x 12' Pushboat "Meghan Elizabeth"
- 24' x 40' self propelled crane barge with 12.5 ton Grove hydraulic crane with 60' boom.
- 16' x 40' deck barge.
- (2) 9' x 40' x 5' sectional barges, typically pinned together to form an 18' x 40' barge for moving our excavator.
- H&M H-75 Vibratory pile driver/extractor with pile clamp and sheet pile clamp.
- Delmag D-12 diesel pile hammer.
- 1998 Komatsu PC150LC-6 Hydraulic Excavator w/ hydraulic thumb and vibratory plate compactor.
- 2001 Ingersoll Rand P185 Air Compressor with rock drill/breaker
- (2) Lincoln Ranger 250 Welder/Generator sets with oxy/acetylene and plasma cutting outfits.
- Lincoln LN25 Wire Feed Welder
- Hilti DDEC-1 concrete coring drill with portable recirculating unit

49 Pine Hill Rd, Cape Neddick, ME 03902 • Phone (207) 439-9831 • Fax (207) 439-9834

Shawn Toohey

EDUCATION

1990 B.S. Civil Engineering, United States Coast Guard Academy
1996 M.S. Civil Engineering, University of Illinois, Champaign-Urbana

EMPLOYMENT

2001- *Owner/Operator, MaritimeConstruction and Engineering, llc*
Responsible for all aspects of operation of a small marine contractor. As a hands-on, on-site owner, Mr. Toohey personally supervises and participates in every project that Maritime constructs.

2000-2001 *Chief Engineer, Chesterfield Associates, Westhampton Beach, NY*
Responsible for estimating/managing various construction projects for a large civil/marine contractor with offices in Long Island, NY and Westport, ME. Chesterfield Associates has average annual revenues of approximately $3 Million.

1996-2000 *Project Engineer/Design Team Leader, USCG Civil Engineering Unit, Providence, RI*
Managed a team of 7 engineers in design and project management for civil and marine construction projects throughout the First Coast Guard District (NJ-Maine) with an average annual project load of approximately $3 Million. Project management duties included qualifying contractors, reviewing bids, drafting and negotiating change orders.

1995-1996 *Graduate School, University of Illinois at Champaign-Urbana*
Assigned by US Coast Guard to attend graduate school and attain a Master's Degree in Civil Engineering.

1992-1995 *Industrial Manager, US Coast Guard Base S. Portland, ME.*
Managed a workforce of approximately 30 trades workers and supervisors in the maintenance of all Coast Guard facilities, lighthouses and small boats from Portsmouth, NH to Boothbay Harbor, ME.

1990-1992 *Assistant Group Engineer, US Coast Guard Group Key West, FL*
Responsible for all aspects of facilities and waterfront maintenance for a 7 acre Coast Guard facility.

Daniel Reisbach

EDUCATION

1985-1990 B.S. Nautical Science, Maine Maritime Academy
1991 TQM- Total Quality Management Program
1992 Wheelhouse Recertification Program, USMA

EMPLOYMENT

2002- *General Foreman, MaritimeConstruction and Engineering, llc*
Responsible for daily production and quality control on a 3-4 person marine construction crew in the construction of piers, seawalls, and pile driving operations. Has primary responsibility for all boat handling/navigation issues.

1997-2002 General Manager, Biddeford Pool Yacht Club
Biddeford Pool Yacht Club is a private facility on the coast of Maine that offers a variety of services and programs to its members. This position is responsible for holding an overview of all club operations and programs, working closely with a staff of 11 and additional volunteers. Working directly with the sailing program director to ensure a safe and friendly environment for both children and adults. Also responsible for all facility management including 4 buildings, grounds, a waterfront facility and 22 boats, both power and sail. This management included helping to develop and instituting a long-term capital improvement and maintenance program. This program included a capital fundraising campaign, which raised $500,000, to build a new pier, ramps and retail gas/diesel facility. This project also involved researching, determining the specifications of and entering into contract with, a boat builder to construct a commercially licensed 22-passenger vessel. In addition I worked directly with the treasurer to develop operational budgets, track costs and manage income.

1990-2002 Project Manager, Reisbach Marine Services
Offered management services to yacht owners for: new yacht construction, commissioning, and sea trials. Acting as the owners representative, while working directly with the many different service providers required to operate 45' and larger, $400,000 to $900,000 yachts.

1997-1999 Ships Engineer, Sea Education Association
Sea Education Association is a study-abroad undergraduate program that combines research in oceanography, maritime studies and nautical science with hands on experience

aboard 3 different 127' to 140' traditional sailing ships. Responsibilities included, development and execution of training program for shipboard student crew and making presentations to groups on various engineering topics. With the help of students and volunteers I was responsible for all repairs and maintenance of shipboard equipment and systems while at sea.

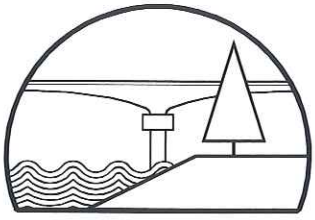
1994-1997 Waterfront Manager, WoodenBoat School

WoodenBoat School is an adult residential education facility on a 64acre saltwater campus in rural Maine. Held the general overview of the waterfront facility, its courses and activities. The facility included a building that held a classroom, staff quarters, kitchen and boat storage, a pier, ramp and floats and over 20 classic wooden boats. Worked closely with a small paid staff and dozens of summer volunteers. Also taught adult education courses in sailing, navigation, coastal cruising and boat building.

1991-1994 Mate, Tug Traveler, Maritrans Corporation

In the 1990s Maritrans was the largest sea-going coastal shipper of petroleum cargo. After completing a yearlong training program was assigned as mate aboard a sea-going tug. The mate is next in command after the captain and is responsible for operation of the tug, while the captain is off watch. Worked with deckhands in critical operational situations to safely maneuver a tug/barge combination of up to 400 feet long with a dangerous multi-million dollar cargo often in environmentally sensitive waters. Working conditions at sea included a continuous rotating watch of 6 hours on and 6 off, around the clock for 3 weeks straight.

Qualifications
Resumes
Representative Projects



BAKER DESIGN CONSULTANTS

Civil, Marine and Structural Engineering

Contact Person:
Barney Baker PE
Baker Design Consultants
11 Stony Brook Lane
Yarmouth, Maine 04096
bakerdesign@csi.com
(207) 846-9724

GENERAL QUALIFICATIONS

Mission Statement

Baker Design Consultants is a firm dedicated to providing planning and design services to clients and communities on projects that make our infrastructure safer and on programs that encourage access to ocean, estuary, river, lake, and wilderness recreational resources in an economic, safe and environmentally responsible manner.

Small Firm with Track Record

Established in 1996, Baker Design Consultants Inc. has remained a small engineering firm with a select listing of projects and clients. The firm has an extensive portfolio of civil, marine, and structural engineering design projects that include buildings, bridges, dams, waterfront improvements, and site development.

Client/Community Partnership

Baker Design Consultants will establish the short and long-term goals of each project through client workshops and public participation. Early identification of program expectations and design requirements will establish a realistic program budget.

Under the guidance of Barney Baker PE, cost effective technical designs are provided for each community that consider potential grant sources, environmental constraints, construction schedule, and long-term maintenance and safety.

Team Tailored to Project Needs

With Federal, State, and Local regulations for design, environmental impact, and accessibility constantly being updated and expanded, consultant service requirements for engineering projects have become increasingly complex and costly. Baker Design Consultants has countered this trend by remaining a small versatile shop with the ability to supplement expertise from an extensive portfolio of specialized Subconsultants in the region. The resulting Project Team is tailored to meet the needs of the client efficiently and economically.

Tools For the Job

The firm has state of the art project management and design software, drafting (AutoCAD 2005 Land Development Desktop) and color plotting capabilities to support the technical and graphic demands of any project.

PLANNING

Waterfront

Masterplans

Space Planning

Site Development

Bridge Inspection

Ferry Operations

PERMITTING

Local, State, Federal

Flood Hazard Development

DESIGN

Bridges & Highway Approaches

Beach Nourishment

Buildings

Coastal Protection

Dams, Water Retaining Structures

Embankment Stabilization

Parks, Boat Launch Sites

Parking and Shore side Infrastructure

Piers, Docks, Wharves

Travel Lifts, Marinas

CONSTRUCTION ADMINISTRATION

GENERAL QUALIFICATIONS CONTI

Projects Speak for Themselves

Our clients include the organizations below. Descriptions and references for representative projects are appended.

Architech
Anderson Landscaping
Barton and Gingold
Bowdoin College
Buell Heminway and Associates
Bureau of General Services
By Design
Chicks Marina
City of Auburn
City of Portland
Custom Float Services
Deluca Hoffman Associates
Dirigo Management Company
Doanes Wharf Project
Earle Noyes & Sons
Earthscapes Limited
Eastern Maine Development Corporation
Eider Construction
Even Keel Marine Specialties
Federal Aviation Administration
First Congregational Church of Gray
Florida Power and Light
Fore River Dock and Dredge, Inc
RW Gillespie and Associates
Harding ESE
Harrasecket Yacht Club
HB Fleming
Kennebunk River Club
Lower Falls Landing Associates
Maine Department of Corrections
Maine Department of Economic and Community Development
Maine Department of Inland Fisheries and Wildlife
Maine Department of Marine Resources
Maine Department of Transportation
Maine-ly Hydroponics
Maine Maritime Academy
Maine Municipal Association
New England Organics
Prouts Neck Bathing Club
Richardson & Associates
Scott Vogell Contracting
Southern Maine Community College
S W Cole Engineering
Tacoma Lakes Association
Terrence J. DeWan & Associates
Tuchenhagen-Zajac
TY Lin International
Town of Boothbay
Town of Boothbay Harbor
Town of Castine
Town of Cumberland
Town of Durham
Town of Falmouth
Town of Kennebunk
Town of Harpswell
Town of Machiasport
Town of Northport
Town of Scarborough
Town of Stonington
Town of Tremont
Town of Yarmouth
Town of York
Turners Island LLC
Washington County Community College
WH Shurtleff Company
Yankee Marina & Boatyard
Yarmouth Boat Yard
University of Maine, Ira C Darling Center

CLIENTS

Architects

Contractors

Commercial Businesses

Developers

Engineers

Federal Agencies

Home Owners

Island Corporations

Marketing Analysts

Non-profit Organizations

Regional Development Corporations

Schools, Colleges & Universities

State Agencies

Towns, Cities

Utilities

BARNEY BAKER PE

1996 to Present Baker Design Consultants, Inc. -*Yarmouth, Maine*

Mr. Baker established Baker Design Consultants, Inc. in 1996 to serve the civil and structural engineering needs of public and private clients in the region. In 30 years as a practicing professional engineer, he has designed and supervised projects that include bridges, dams, buildings and waterfront structures and associated site development.

The portfolio of Maine projects undertaken by Mr. Baker includes work for public agencies, municipalities and private clients. In addition to design services, this work often includes concept planning and facilitation for a cost effective design, Masterplan development to serve long-term needs, grant writing to support project funding and local, state and federal permitting to move projects to construction.

In his capacity as principal and chief engineer, Mr. Baker personally supervises all projects undertaken by the firm.

1985 T.Y. Lin International -*Falmouth, Maine*

In his tenure with this internationally renowned company specializing in transportation structures, Mr. Baker's responsibilities progressed to that of Senior Structural Engineer and Project Manager for the Maine office. In this capacity, he supervised planning, permitting, design, and construction administration for transportation structures and waterfront projects undertaken in the region.

Bridge projects included highway, rail, and pedestrian structures for federal, state and municipal clients in the region. Structure types comprised prefabricated arches, multi-plate culverts, rigid frames, single and multiple span bridges, and access walkways.

Building projects undertaken by Mr. Baker included a precast concrete parking garage, municipal treatment plant buildings and tankage, fire stations, hatcheries, and public works facilities.

1980 WA Fairhurst and Partners -*Edinburgh, Scotland*

Mr. Baker worked as team project structural engineer on a variety of bridge, roadway and historic building rehabilitation projects.

REGISTRATIONS

Registered Professional Engineer in the State of Maine (5737)

MDOT Level II Local Project Certification

PROFESSIONAL ACTIVITIES:

Member:

American Society of Engineers

Consulting Engineers of Maine

Friends of Casco Bay

Maine Better Transportation Association

Maine Island Trails

Structural Engineering Association of Maine

Island Institute

Associate Member:

Maine Marine Trades Association

ACADEMIC ACHIEVEMENTS:

BS (Hon) Civil Engineering, University of Edinburgh, Scotland, 1980

Thesis: Fabric in Reinforced Earth

(207) 846-9724 bbaker@maine.rr.com

MICHAEL HASKELL

2007 to Present Baker Design Consultants, Inc.-Yarmouth, Maine

Mr. Haskell joined Baker Design Consultants in 2007 as civil/structural designer and draftsmen adding over 16 years of experience working with projects that include site and subdivision layout, road and infrastructure design, building development and waterfront facilities. Mr. Haskell has software experience expertise with AutoCAD (2D & 3D), HydroCAD and Carlson Software programs.

2003 Development Services, Inc.-Yarmouth, Maine

At Development Services, Mr. Haskell was in charge of all engineering plan production and standardization of the plans for the office. Work included subdivision layout, road design, stormwater design and permitting applications and submittals.

2000 Gorrill-Palmer Associates-Gray, Maine

Mr. Haskell was a lead design engineer for major chain clients and public schools. Duties included stormwater design and detailing, permitting, meetings and construction inspection.

1997 Taylor Engineering Associates-Auburn, Maine

As a civil engineer, Mr. Haskell developed site and parking layouts for several prominent retail chains. This work included stormwater design and detailing of runoff structures in accordance with local and state requirements. While at Taylor he assisted with roof design, code compliance assessments and forensic engineering for insurance companies.

1993 Bulloch Brothers Engineering-St. George, Utah

At Bulloch Brothers, Mr. Haskell was the lead engineer on several large subdivision projects in the Town of Mesquite, Nevada. Work included road, sewer and water design, and quantity estimation.

1991 Hoyle, Tanner and Associates-*Bedford, New Hampshire*

Mr. Haskell was a design engineer on airport projects throughout New England.

REGISTRATIONS

Engineering EIT, State of Maine

Completion of Stormwater Law Courses with the State of Maine.

ACADEMIC ACHIEVEMENTS:

BS Civil Engineering, New England College, Henniker, New Hampshire, 1992

(207) 846-9724 *bbaker@maine.rr.com*

Buildings

Project: **Sand/Salt Storage Sheds**, Scarborough, Maine –2009

Baker Design Consultants has prepared standard design drawings and specification for a composite beam and plywood shell for use by municipalities as sand/salt storage facilities. The building components are economical and rugged and sized to meet site-specific code and loading requirements. Several facilities have been constructed in Maine.
Client: WH Shurtleff Co.
Contact Person: Malcolm F Poole: (207) 885-1230 ext 3221

Project: **Hawkridge Composting Facility**, Yarmouth, Maine –2004/2008

This is an unheated metal-framed plant facility that houses equipment, space for composting operations and storage. The environment in some areas is corrosive to the building structure. Following a structural condition inspection of the facility, plans were prepared to replace large sections of roofing and to apply a protective coating to the structural steel. The use of translucent composite roof panels increases natural light in the facility and solar heat retention.
Client: New England Organics
Contact Person: James Ecker: (207) 781-5011

Project: **Pequawket Water Company**, Fryeburg, Maine –2005

Baker Design Consultants completed structural design for a masonry water distribution facility that included equipment, office and storage rooms. Integral with the design were foundations for an 80-ft water storage silo and a slab-on-grade vehicle apron.
Client: Pequawket Water Company
Contact Person: Lisa P Cote: (207) 935-4157

Project: **Skating Pond Warming House**, Yarmouth, Maine -2004

Baker Design Consultants was the Structural Engineer on a recreation building to serve the Community. Local regulatory review required non-combustible materials to be used in this un-heated structure. Light Gage Steel framing was used with special metal fabrications to accommodate curved roofing.
Client: Yarmouth Village Improvement Society
Contact Person: Bruce Butler: Architect; (207) 846-1359

Project: **DIFW Seaplane Hangar**, Greenville, Maine -2003

This project began with inspection and a feasibility assessment of the Departments' 1950 seaplane hangar that had been relegated to cold storage in the 1990's. This led to a program of building envelope and plant rehabilitation/replacement that allowed the facility to be reactivated as hangar and office space.
Client: Maine Department of Inland Fisheries and Wildlife
Contact Person: Ron Taylor: Director of Engineering; (207) 287-5218

Municipal/Institutional Piers

Project: **SMCC Pier**, South Portland, Maine –2006

Planning, Design and grant support for a new pier to replace a historical timber structure on the school campus. The new $1.2 M quasi-public pier project serves a multitude of educational, institutional and municipal users that require waterfront access to Casco Bay. The facility provides a truck-rated deck, berthing for small and large vessels and a dedicated classroom area.
Client: Southern Maine Community College
Contact Person: Chuck Gregory, Ph.D.: (617) 273-7204

Project: **Bowdoin College Pier,** Harpswell Maine -2006

Planning, permitting and design for a new pier at the Bowdoin Coastal Studies Center on Orr's Island in Harpswell. The pier is ADA accessible, provides a deep-water boat landing and a redundant pump system to ensure a continuous water supply to the marine laboratory. The pier design utilizes long-span Glulam timber beams and steel piles socketed into subsurface ledge.
Client: Bowdoin College
Contact Person: Office of Facilities Management: Greg Hogan; (207) 725-3091

Project: **FAA Catwalk Repairs**, South Portland, Maine –2006

The work includes substructure rehabilitation of an existing marine catwalk that extends from the Portland Jetport across Long Creek and into the Fore River Estuary. It provides access and support for navigational aids for Runway 29. The work began with a structural investigation of the entire structure. As a result of premature failure of one pile and deterioration in others, a program of pile jacketing was determined to be the most cost effective repair.
Client: Federal Aviation Administration
Contact Person: Charles Beaton: (603) 881-1306

Project: **DIFW Seaplane Dock**, Greenville, Maine -2004

Located on Moosehead Lake, an existing 100-foot long crib shore bulkhead had deteriorated above the waterline to the point that it was no longer serviceable. Baker Design Consultants completed field investigation, planning, permitting, design and construction management for a replacement facility. The new construction placed ballasted precast concrete structures on the original rock crib structure to form a 12-ft wide pier approach and a fastening point for a 'strong-arm' dock system for an offset 100-ft floating dock. Remaining bulkhead sections were converted to a riprap slope to complete the project.
Client: Maine Department of Inland Fisheries and Wildlife
Contact Person: Ron Taylor: Director of Engineering; (207) 287-5218

Project: **Little John Pier**, Yarmouth, Maine –2004

Structural inspection resulted in the development of a reconstruction program for this of an existing Town pier that provides year-round waterfront access for fishermen to Casco Bay and seasonal access for recreational boaters. Work included replacement of deteriorated timber superstructure and the addition of reinforced concrete piers extending from an original rock crib.
Client: Town of Yarmouth
Contact Person: Town Engineer Dan Jellis: (207) 846-4971 ext 434

REPRESENTATIVE PROJECTS

Bulkheads-Retaining Walls-Revetments

Project: **Higgins Beach Stone Revetment**, Scarborough Maine -current

This popular beach suffered damage in the April 2006 storm event. Wave generated erosion threatened the perimeter road and several shorefront properties. Baker Design Consultants provided coastal engineering design and permit support for the replacement of 550-ft of failed concrete/riprap armor with a more aesthetic fitted stone shore protection system. The stone revetment reduces scour of the adjacent sand dune due to less reflected wave energy and incorporates sidewalk, granite stairs and a beach access ramp to the beach.
Client: Town of Scarborough
Contact Person: Mike Shaw: Public Works Director; (207) 730-4400

Project: **Stone-Kohlberg Revetment**, Scarborough Maine –current

An existing timber seawall/bulkhead failed due to wave damage in the April 2006 coastal storm event. Working with multiple property owners in a very sensitive coastal regulatory environment, Baker Design Consultants coordinated a geotechnical and survey investigation and design for an effective replacement that provides long-term protection to shorefront property and benefits the adjacent sand dune system.
Client: Stone and Kohlberg Families
Contact Person: On request

Project: **Wells Beach Seawall**, Wells Beach, Maine -2009

Baker Design Consultants undertook a complete assessment of reinforced concrete deterioration and beach scour activity at the site location. This research led to the development of a repair program to protect resort property that included reconstruction of deteriorated concrete and the installation of a protective steel sheet pile cut-off wall. Compliance with restrictive permit criteria mandated careful documentation throughout design and construction.
Client: Lafayette Oceanfront Resort
Contact Person: Katheryn W Kelly (207) 646-2831

Project: **Skipper Joes Point Seawall**, Kennebunkport, Maine -2009

Field inspection and survey of an existing deteriorated coastal concrete seawall and the design and permitting for a cost effective replacement system. Approximately 400-ft of wall was replaced with a durable reinforced concrete wall. Plantings and granite coping encourage the seawall system to blend with the rocky shore.
Client: LaRose-Montagner Family
Contact Person: On Request

Project: **Yankee Marina Timber Bulkhead**, Yarmouth Maine -2007

The failure of a section of an existing seawall that defines property frontage on the Royal River prompted the design of a replacement timber bulkhead. Through a process of value engineering, a pressure treated timber soldier pile with deadman tiebacks solution was selected. This option allowed for sections of the timber wall to be fabricated on shore and lifted into place during the winter.
Client: Yankee Marina
Contact Person: Deborah Delp: President; (207) 333-6600

R.W. Gillespie & Associates, Inc.
Geotechnical Engineering • Environmental Consulting • Materials Testing Services

REPRESENTATIVE HIGHWAY, BRIDGE, AND CULVERT PROJECTS

R.W. Gillespie & Associates, Inc. has provided professional and/or technical services on many highway, bridge, and culvert projects including over 100 projects associated with municipalities, Maine Turnpike Authority (MTA), Maine Department of Transportation, and the New Hampshire Department of Transportation. Technical services have included soils and concrete materials testing, construction observation, special inspections, geotechnical engineering, and environmental consulting projects. Representative recent projects include the following:

Geotechnical Investigations

Widening of Washington Street Overpass Bridges (I-95), MTA, Auburn
Mountain Division Rail Trail Stream Crossings, Westbrook-Gorham
Scarborough Eastern Trail Project (Ongoing), Scarborough
Eastern Trail U.S. Route 1 Bridge , Saco
Eastern Trail I-195 Retaining Walls, Saco
Eastern Trail Mill Brook Crossing, Saco
Bridge Replacement at Shorey's Brook, Eliot
Route 230 Culvert Replacement, Trenton
Reconstruction of Range Road, Cumberland
Downtown Village Enhancement Project (U.S. Route 1 Rehabilitation), Kennebunk
Outlet Road Bridge Replacement, New Gloucester
Pleasant River at Lawrence Road Bridge Replacement, Gray
Totten Road Culvert Replacement, Gray,

Materials Testing Services and Special Inspection Projects

West Field Road and Litchfield Road Underpasses, MTA, Gardiner, Maine
Exit 53 Underpass Bridge Rehabilitation, MTA, Falmouth, Maine

Materials Testing Services and Special Inspection Projects (continued)

Martin's Point Bridge Replacement Project, Falmouth and Portland

Interstate 93 Mainline Bridge, Salem, New Hampshire

Exit 53 Bridge Rehabilitation and Interchange Improvements, Falmouth

U.S. Route 4 Bridge Replacement, Lebanon, New Hampshire/Hartford, Vermont -

Single Point Urban Interchange, Lewiston

Presumpscot River Bridge, MTA:

Boundary Bridge Project, Bridgewater,

Exit 48 Bridge Replacement, MTA, Portland

Commercial Street Traffic & Drainage Improvements, City of Portland, Portland

Gray Maintenance Facility, MTA, Gray

Saco River Bridge Rehabilitation, MTA, Saco

Exit 42 Bridge Rehabilitation, MTA, Saco

Shore Road Recreational Path, MTA, Cape Elizabeth

Plant and Field Testing, Pike Industries Region 2 – Maine

Blackstrap Road and Maine Central Railroad Bridges, Falmouth,

Precast Prestressed Inspection in Auburn, Maine for New HampshireDOT

Precast Prestressed Inspection in Middlebury, Vermont for New HampshireDOT

R.W. Gillespie & Associates, Inc.

ERIK J. WIBERG, P.E.
President
Chief Geotechnical Engineer

REGISTERED PROFESSIONAL ENGINEER:
Maine New Hampshire Massachusetts Rhode Island Vermont Florida

PROFESSIONAL MEMBERSHIPS:
American Society of Civil Engineers -
Maine Section of American Society of Civil Engineers, President (2008-2009)
Geo-Institute
International Society for Soil Mechanics and Foundation Engineering

EDUCATION:
The Ohio State University, B.S., 1989 (Civil Engineering)
The Ohio State University, M.S., 1991 (Geotechnical Studies)

GENERAL BACKGROUND:

As Chief Geotechnical Engineer and President of R.W. Gillespie & Associates, Inc., Mr. Wiberg's responsibilities include corporate management, business development, and project management. He is active technically in geotechnical and civil engineering aspects of the company including engineering analysis, preparing technical reports, and producing conceptual and detail designs. His diverse geotechnical and civil engineering experience covers a broad range of projects ranging from site feasibility evaluations, subsurface explorations, foundation evaluations, ground improvement, forensic investigations, shoreline stabilization, municipal waste management permitting, and civil site design. His geotechnical experience includes projects utilizing rock anchors, moment foundations, deep foundations, site preloading and monitoring, construction and operational dewatering, and field instrumentation, including slope inclinometers and piezometers. His experience also includes rock slope geotechnical evaluations, pre-blast surveys, vibration monitoring, and vibration damage assessments. His geotechnical experience encompasses projects serving clients in educational, commercial, municipal, residential, industrial, and telecommunications sectors.

Mr. Wiberg's evaluations and recommendations for heavy earthwork construction, preparation of specifications and bid documents, civil site design, and permitting provides clients with an understanding of the issues important to their projects. He has represented clients before the Maine Department of Environmental Protection, at public hearings, and before local review boards. In addition, he has experience in project management and preparation of Environmental Site Assessments, and National Environmental Policy Act screenings and Cultural Resource Assessments for telecommunications facilities.

His previous experience includes an engineering position at a geotechnical, materials testing, and environmental firm serving national and international companies. He has served as project engineer over a diversified range of geotechnical and environmental projects ranging from waste management facilities, earthen dams and embankments, contamination assessments, environmental impact studies, construction quality control/quality assurance programs, and post-construction performance monitoring and inspection. His technical contributions to these projects include design and evaluation of composite containment liner systems for municipal and industrial waste sites, settlement and slope stability analyses; groundwater and finite-element

modeling of tailings dam seepage; stormwater management systems design, floodplain delineation studies, and process water balance analyses.

REPRESENTATIVE EXPERIENCE:

Geotechnical Investigations *- Eastern Trail Bridge Over Pan Am Railroad (Scarborough), Mountain Division Rail Trail (Westbrook/Windham), Mainline Gas Distribution System (Maine), Precast Box Culvert (Eliot), Old Orchard to Saco Eastern Trail Project (Saco), Widening of Washington Street Overpass (Auburn),Groton Wind Farm Turbine Explorations (Groton, NH), Dry Dock No. 3 Waterfront Support Facility (Portsmouth Naval Shipyard), IDEXX Laboratories Phase I Addition and New Administration Building (Westbrook), Peaker Power Generation Facility (Billerica), Augusta and Biddeford Crossing Retail Developments, Sanitary Sewer Expansion and Improvements (Saco), Falmouth Elementary School (Falmouth), Bangor International Airport Digital Airport Surveillance Radar.*

Quality Control/Quality Assurance Programs *– Groton Wind Farm Turbine Foundations (Groton), Pine Tree Shopping Center (Portland), Biddeford Crossing Retail Development (Biddeford), BIW Land Level Transfer Facility dredging (Bath), Cooling Pond Embankment and Geosynthetic Liner Installation (Nichols, Florida), Various industrial tailings facilities (Florida).*

Embankment Design *- More than 70,000 feet of earthen containment dikes over a variety of foundation conditions for tailings impoundments, geocomposite lined waste containment facilities, and a geosynthetic lined cooling pond.*

Landfill Expansion Permitting *- Water balance evaluation of existing leachate treatment system to evaluate the storage capacity necessary for phased expansion of a southern Maine landfill operation. Designed modifications and expansion of existing leachate storage system to meet current regulatory requirements.*

Wireless Telecommunications Facilities *- Geotechnical Investigations, Phase I Environmental Site Assessments, and NEPA threshold screenings.*

ALSO OF NOTE:

2008 and 2012 Report Card on Maine's Infrastructure Committee, (2008 Spokesperson)
Maine Engineering Promotional Council, Current and Founding Director
Maine Engineers Week Planning Committee
Tau Beta Ti Engineering Honor Society, Member
Chi Epsilon Civil Engineering Honor Society, Member
Team engineer for 1996 National ASCE Outstanding Civil Engineering Achievement Merit Award winning project
Master's Thesis: The Probability Distribution of Snowmelt in Clearcuts from a Rain-on-Snow Event in the Central Cascades of Washington

R.W. Gillespie & Associates, Inc.

JOSHUA BOYNTON, E.I.T.
Geotechnical Engineer

PROFESSIONAL REGISTRATIONS
Engineer-in-Training, Maine

EDUCATION:
University of Maine, Orono, Maine, M.S. Civil and Environmental Engineering, 2012
University of Maine, Orono, Maine, B.S. Civil and Environmental Engineering, 2009

GENERAL BACKGROUND:

Mr. Boynton supports our Geotechnical Engineering group with contributions in field explorations, engineering analysis, and geotechnical observations during construction. In the field, Joshua's responsibilities include implementing exploration programs, coordinating subcontractor activities, logging and sampling soil borings, rock corings, and test pit excavations; in-situ testing, and assisting with geophysical investigations. In support of geotechnical engineering analysis, he interprets and evaluates field data, selects and coordinates laboratory testing, assesses and evaluates soil bearing capacity and settlement, rock quality, and prepares technical reports and recommendations.

Previously, he worked as a civil engineering technologist at RWG&A while pursuing his undergraduate and graduate degrees. His responsibilities included field QA/QC testing of soils, concrete, asphalt, and associated laboratory work, and verifying placement of reinforcement steel. His experience includes performing standard tests for soils and fresh and hardened concrete in conformance with ASTM, AASHTO and other applicable procedures. His geotechnical observation experience includes subgrade proof-rolling, construction of mechanically stabilized earthen walls, deep foundation pile driving, and replacement of unsuitable ground floor and foundation bearing materials.

His previous experience includes a renewable energy research project at the University of Maine working with a team of client and university engineering professionals. He evaluated the design and performance of foundations for fixed seabed tidal turbines using centrifugal scale modeling, compiled the data findings, and prepared a client recommendation report. As a graduate teaching assistant, he taught soil mechanics and materials laboratory sections.

REPRESENTATIVE EXPERIENCE:

***Groton Wind Farm – Groton, New Hampshire** – Performed geotechnical and construction observation for the construction of a twenty-four 2.0 megawatt wind turbines. Observation services included rock anchor hole drilling and water-pressure testing, rock anchor assembly, handling, and insertions, rock anchor grouting operations including bleed, fluidity, and mud balance testing of grout, preparation and strength testing of grout cubes, post-tensioned rock anchors performance and proof tests, and crane platform plate bearing tests.*

R.W. Gillespie & Associates, Inc.

CERTIFICATIONS:

Concrete Inspector – American Concrete Institute – Level 1
Soils and Aggregate Technician – Northeast Transportation Training Certification Program (NETTCP) – No. 1171

ALSO OF NOTE:

American Technical Institute Portable Nuclear Density/Moisture Gauge Use and Safety Training
OSHA 40 Hour Training in Health and Safety for Hazardous Waste Operations

R.W. Gillespie & Associates, Inc.

MATTHEW T. GRADY, P.E.
Associate
Manager Materials Testing Services
Materials Engineer/Geotechnical Engineer

CERTIFICATIONS:

Professional Engineer -, Maine, New Hampshire, Massachusetts, California, Hawaii
MaineDOT Local Project Administration Certification
Concrete Inspector - ACI Concrete Field Testing Technician - Grade I
Concrete Technician - Northeast Transportation Technician Certification Program (NETTCP) - No. 1023
ICC Structural Masonry Special Inspector
Quality Control Personnel Certification, Level II - Precast/Prestressed Concrete Institute (PCI)

PROFESSIONAL MEMBERSHIPS:

American Society of Civil Engineers, Member

EDUCATION:

University of Massachusetts at Dartmouth, B.S. (Civil Engineering)
Kansas State University - Masters courses in civil/geotechnical engineering
University of Idaho - Masters courses in civil/geotechnical engineering

GENERAL BACKGROUND:

Mr. Grady is RWG&A's Manager of Materials Testing Services. Mr. Grady's duties as Manager of Materials Testing Services include overseeing a supervisor and ten lab/field technicians with testing services on current projects, establishing and maintaining the American Association of State Highway and Transportation Officials R18 lab accreditation status, training new technicians, supporting staff with continuing education and certifications, providing technical consulting on current projects and marketing materials testing services in Maine and New Hampshire.

Mr. Grady also serves as a Geotechnical Engineer on an as needed basis. Geotechnical engineering duties include supporting RWG&A's Geotechnical Engineers on a wide variety of projects. His project contributions have included in-field geotechnical assessment and observation, pile driving inspection, proposal writing, along with geotechnical engineering analyses, design, and technical report preparation.

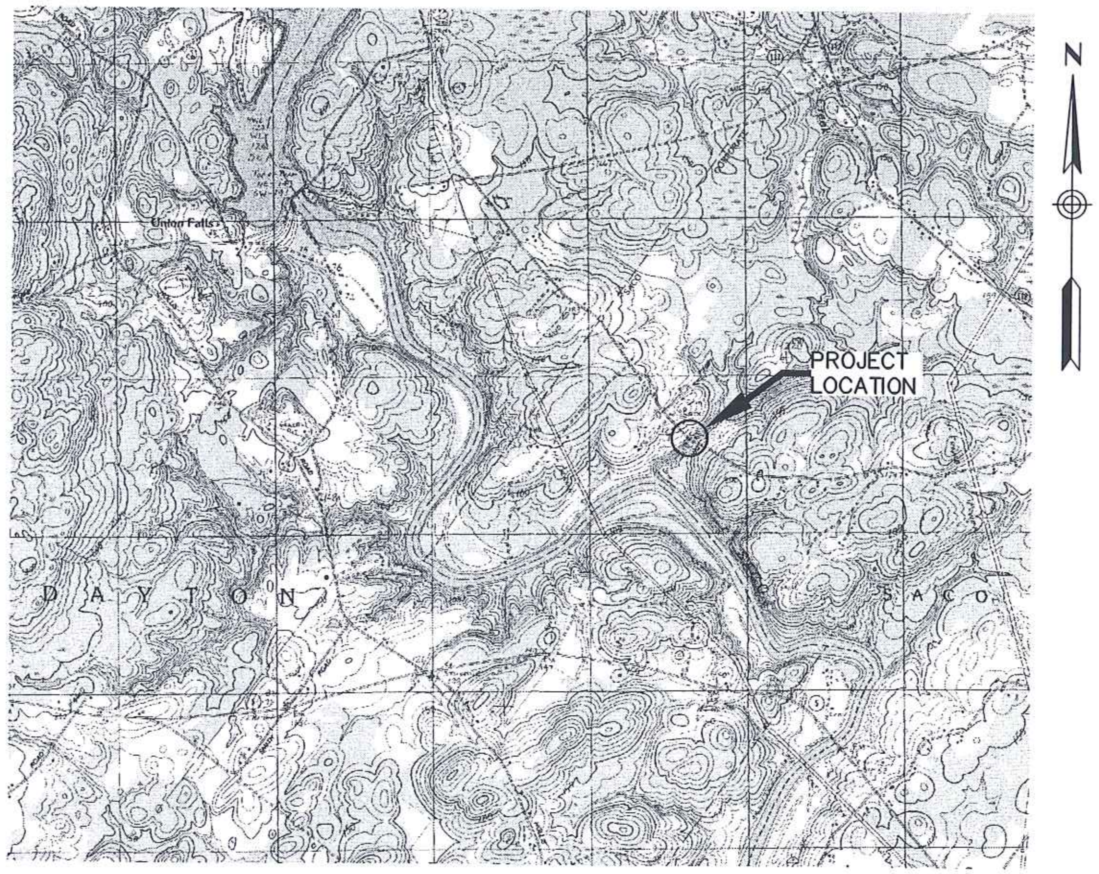
Prior to joining RWG&A, Mr. Grady held the position of Vice President of Engineering with Construction Engineering Labs, Inc., (CEL), in Pearl City, Hawaii. There he worked for nine years on a variety of projects providing both geotechnical engineering consulting and construction materials testing services. Consulting project tasks included subsurface soil stratification, collection of soils samples, geotechnical engineering analyses and design and technical report preparation. Construction materials testing services included field and laboratory testing of soils, aggregate, concrete, and asphalt. Geotechnical engineering consulting and construction materials testing services were performed on projects such as private residential and military housing subdivisions, commercial buildings, roadway improvements, water and fuel storage tanks, reservoirs, water and wastewater treatment plants, airport runway repairs, golf courses and athletic fields, piers, and communication towers. Mr. Grady was responsible for having CEL's laboratory accredited by A2LA.

ALSO OF NOTE:

Completed Troxler Electronic Laboratories, Inc., Radiation Safety Training Course
Completed Troxler Electronic Laboratories, Inc., Radiation Safety Officer Class
Completed Troxler Electronic Laboratories, Inc., HAZMAT Certification
Completed 1926 Construction Industry Occupational Safety and Health Guide - 10 hr course
Completed Hazardous Materials D.O.T. Training - Portable Nuclear Gauge, American Technical Institute
Structural Masonry Inspection Training

STACKPOLE CREEK BRIDGE REPLACEMENT

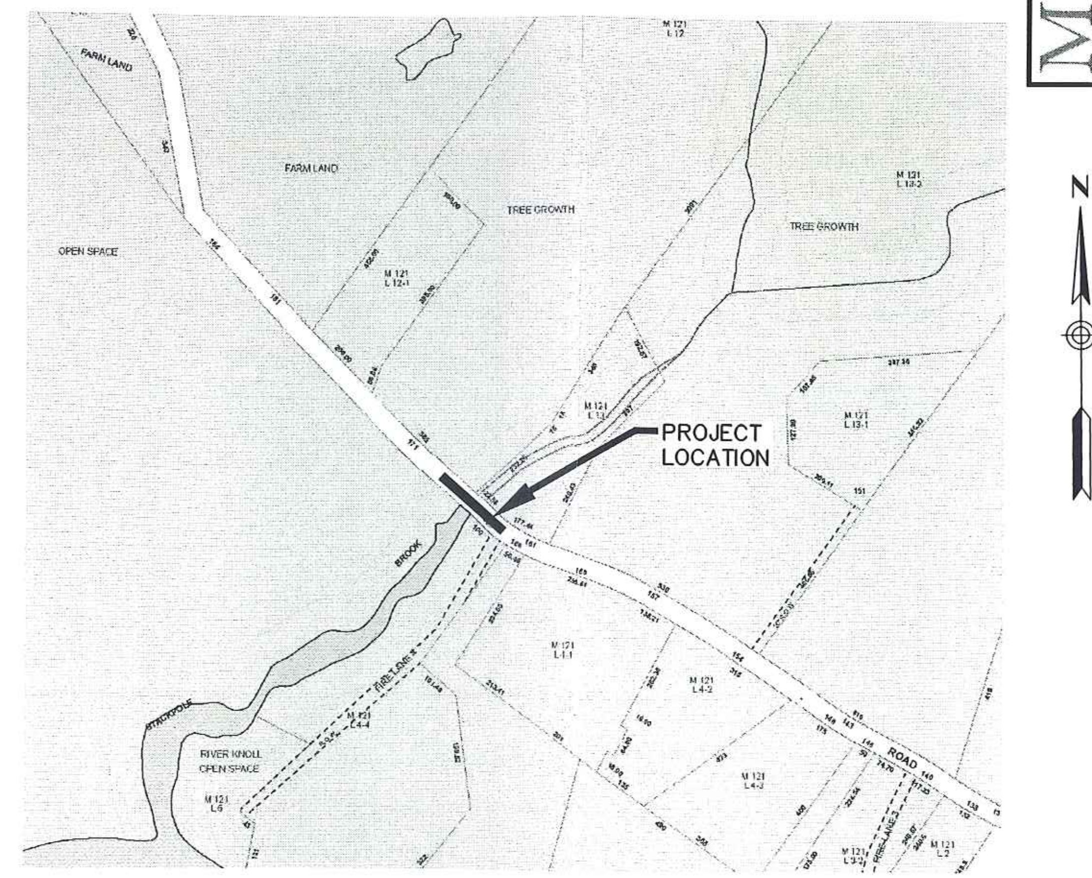
SACO, MAINE
PROJECT NO. 15-13



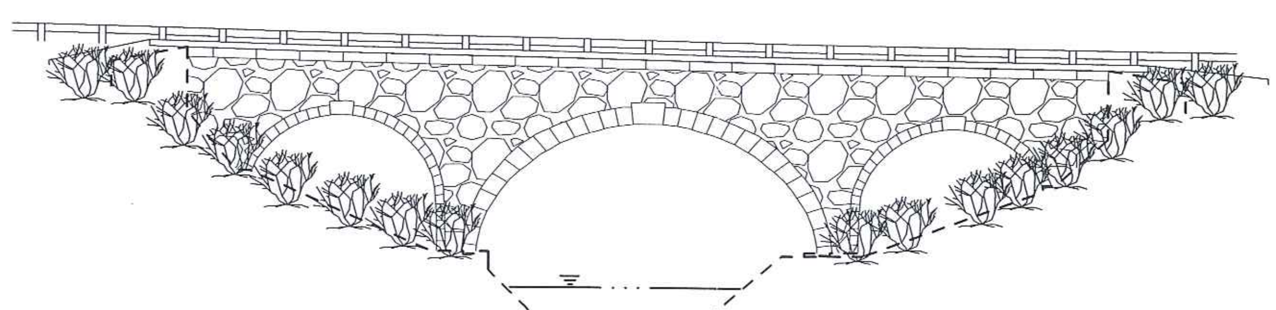
USGS LOCATION MAP

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
G-1	COVERSHEET
C-1	SITE PLAN
S-1	PLAN & PROFILE
S-2	TRANSVERSE BRIDGE SECTION
S-3	ELEVATIONS, ARCH BRIDGE OPTIONS



TOWN OF FALMOUTH TAX MAP 374



ELEVATION VIEW

\\bdc-srv\projects\15\15-13 stackpole bridge design-build\cad\15-13 stackpole bridge design-build prelim.dwg 3/23/2015

Maritime
Construction and Engineering, LLC

BAKER DESIGN CONSULTANTS
Civil, Marine, and Structural Engineering
7 Spruce Road • Freeport • Maine • 04032 • 207-846-9724 • info@bakerdesignconsultants.com

NO.	SUBMISSION	DATE	INT.
A	PRELIMINARY DESIGN PROPOSAL	3-23-15	BJB

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED
PROFESSIONAL ENGINEER

DESIGNED BY: DJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

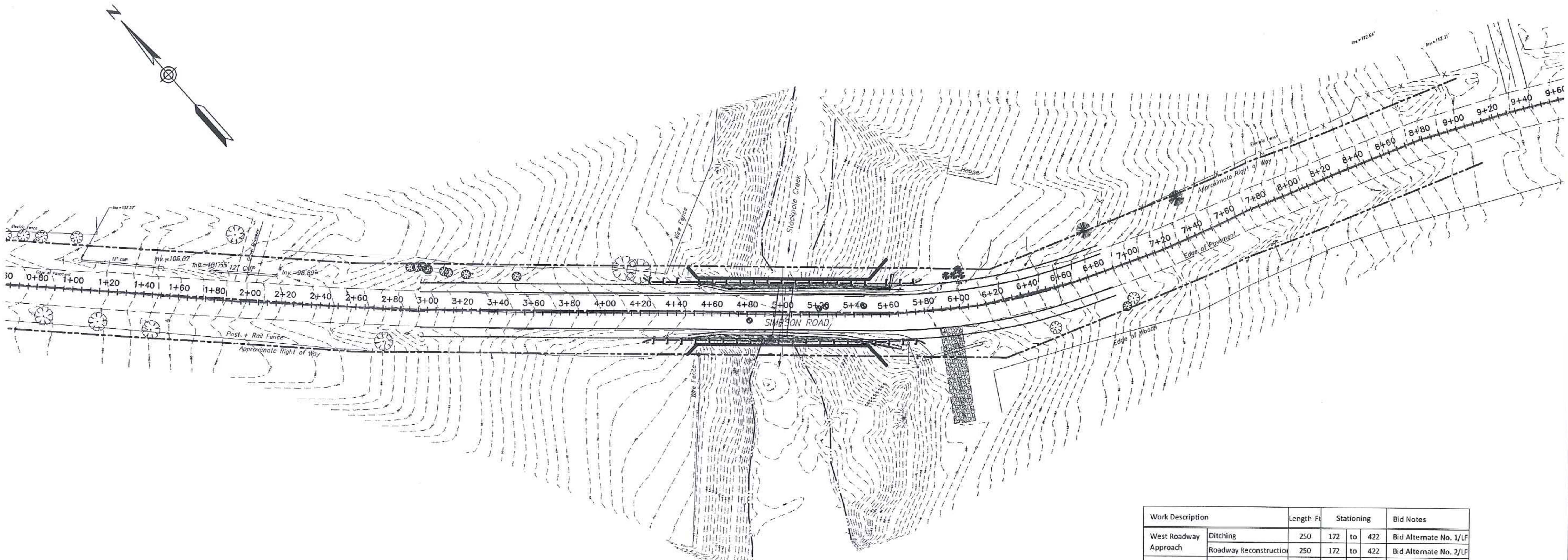
SHEET TITLE: COVERSHEET

PROJECT: CITY OF SACO
STACKPOLE CREEK BRIDGE
SACO, MAINE

DATE
MARCH 2015

CONTRACT NO.
15-13

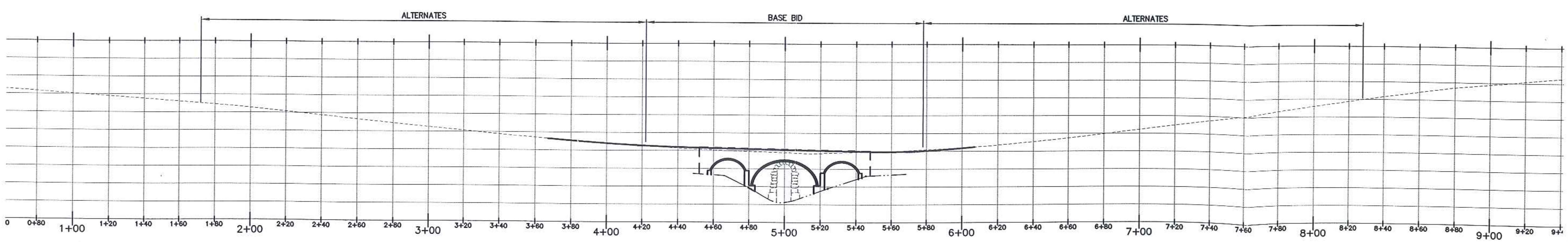
SHEET NO. G-1
REV. A



PLAN

0 15 30 45 90

Work Description		Length-Ft	Stationing			Bid Notes
West Roadway Approach	Ditching	250	172	to	422	Bid Alternate No. 1/LF
	Roadway Reconstructio	250	172	to	422	Bid Alternate No. 2/LF
Proposed Bridge	West Approach	30	422	to	452	Base Bid (6 Options)
	Bridge Replacement	96	452	to	548	
	East Approach	30	548	to	578	
East Approach	Ditching	250	578	to	828	Bid Alternate No. 1/LF
	Roadway Reconstructio	250	828	to	828	Bid Alternate No. 2/LF



PROFILE

0 15 30 45 90

\\bdc-srv\projects\15\15-13 stackpole bridge design-build\cad\15-13 stackpole bridge design-build prelim.dwg 3/23/2015

BAKER DESIGN CONSULTANTS
Civil, Marine, and Structural Engineering
7 Spruce Road • Freeport • Maine • 04032 • 207-846-9724 • info@bakerdesignconsultants.com

NO.		DATE	INT.
A	PRELIMINARY DESIGN PROPOSAL SUBMISSION	3-23-15	BJB

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED
PROFESSIONAL ENGINEER

DESIGNED BY: DJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

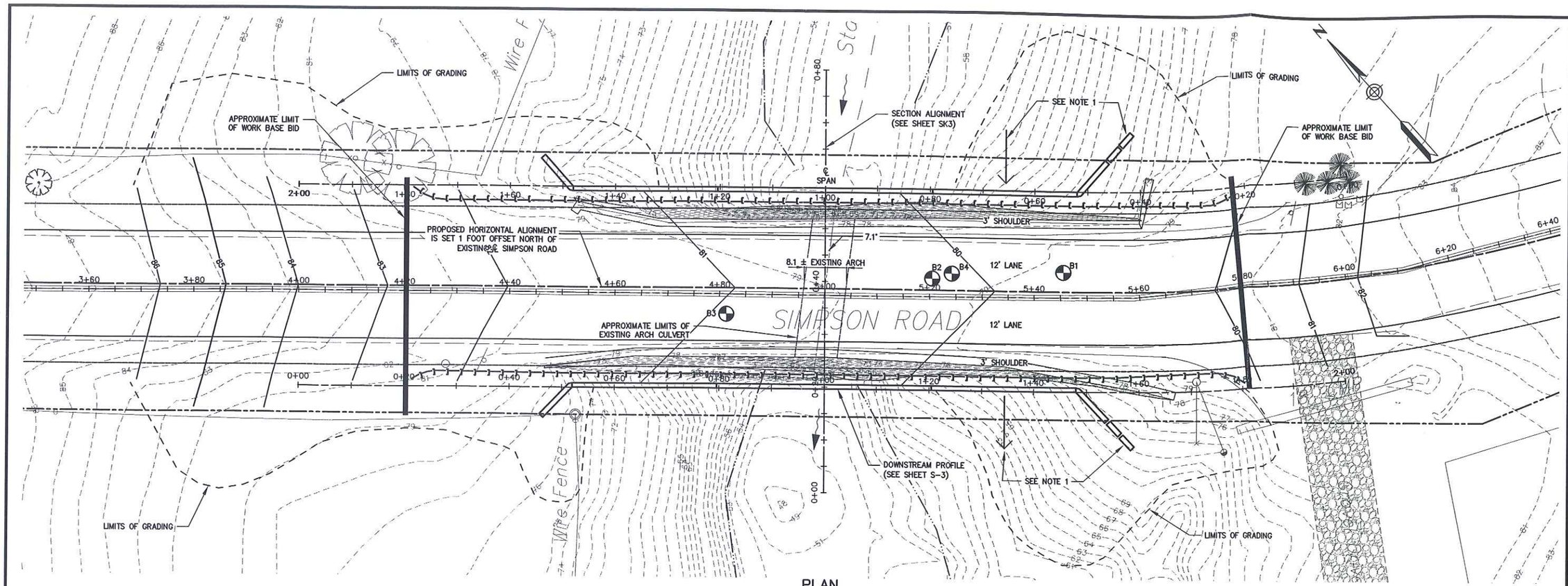
SHEET TITLE:
SITE PLAN
PROPOSED ARCH BRIDGE

PROJECT:
CITY OF SACO
STACKPOLE CREEK BRIDGE
SACO, MAINE

DATE
MARCH 2015

CONTRACT NO.
15-13

SHEET NO. C-1
REV. A



NOTES:
1. A PEDESTRIAN UNDERPASS IS NOT PART OF THE BID, BUT WOULD BE POSSIBLE WITH AN EXTENSION OF EAST SIDE WING WALLS AND FURTHER GRADING ON ABUTTING PROPERTIES.
2. PROPOSED VERTICAL ALIGNMENT ASSUMES NO CHANGE IN APPROACH GRADING. IF ALTERNATE NO.2 IS AWARDED, VERTICAL PROFILE MAY BE ADJUSTED.

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Civil, Marine, and Structural Engineering
7 Spruce Road • Freeport • Maine • 04032 • 207-846-9724 • info@bakerdesignconsultants.com

NO.	DESCRIPTION	DATE	INT.
A	PRELIMINARY DESIGN PROPOSAL SUBMISSION	3-23-15	BJB

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: DJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: PLAN & PROFILE PROPOSED ARCH BRIDGE

PROJECT: CITY OF SACO STACKPOLE CREEK BRIDGE SACO, MAINE

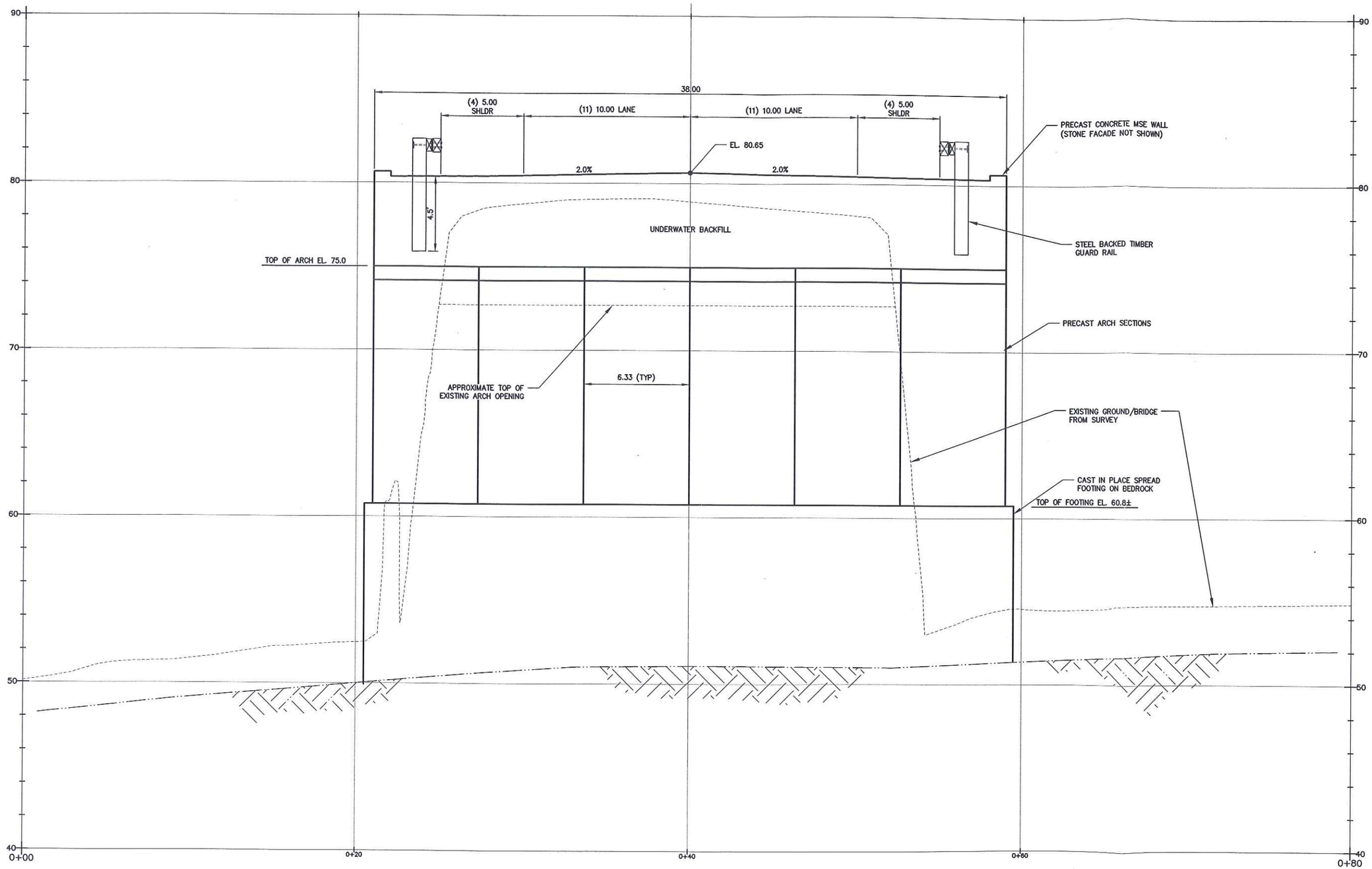
DATE MARCH 2015

CONTRACT NO. 15-13

SHEET NO. S-1

REV. A

\\bds-srv\projects\15\15-13 stackpole bridge design-build\cad\15-13 stackpole bridge design-build prelim.dwg 3/23/2015



TRANSVERSE BRIDGE CROSS SECTION AT MIDSPAN (STA. 5+00)

0 1.5 3 4.5 9

NOTES:
1. MDOT RURAL ROAD STANDARD RECOMMENDS 10-FT LANES AND 5-FT SHOULDERS FOR 30MPH TRAFFIC.

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NO.		DATE	INT.
A	PRELIMINARY DESIGN PROPOSAL SUBMISSION	3-23-15	BJB

STATE OF MAINE
BARNEY J. BAKER No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DJB
DRAWN BY:	JJC
CHECKED BY:	BJB
SCALE:	AS SHOWN

SHEET TITLE: TRANSVERSE BRIDGE SECTION

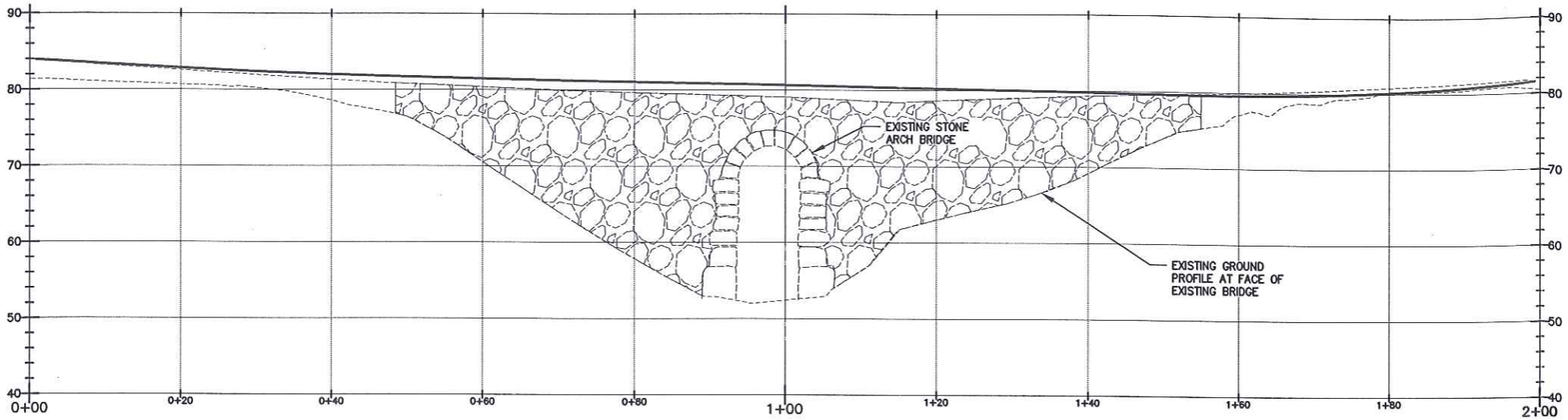
PROJECT: CITY OF SACO STACKPOLE CREEK BRIDGE SACO, MAINE

DATE: MARCH 2015

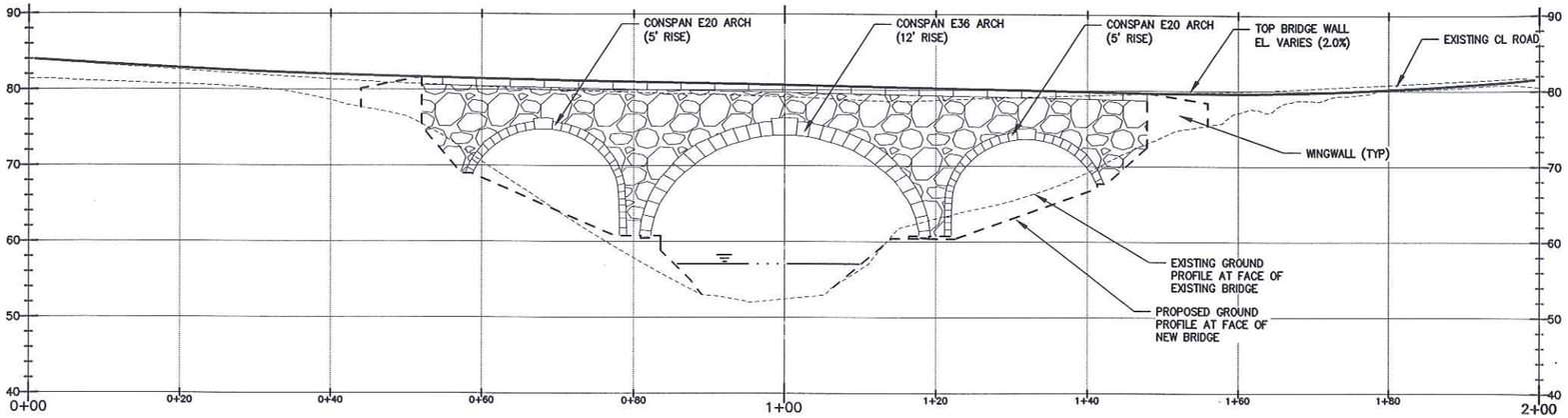
CONTRACT NO. 15-13

SHEET NO. S-2

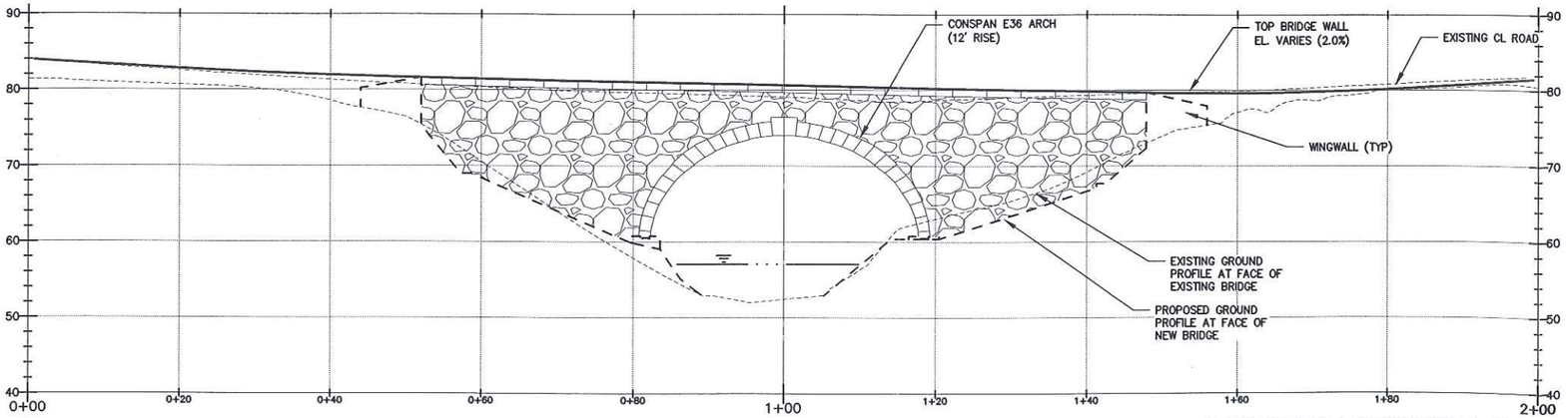
REV. A



EXISTING BRIDGE



3 SPAN ARCH ALTERNATE



SINGLE SPAN ARCH ALTERNATE

DOWNSTREAM ELEVATIONS SHOWN

0 5 10 15 30

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NO.	DESCRIPTION	DATE	INT.
A	PRELIMINARY DESIGN PROPOSAL SUBMISSION	3-23-15	BJB

STATE OF MAINE
BARNEY J. BAKER
No. 5737
LICENSED PROFESSIONAL ENGINEER

DESIGNED BY: DJB
DRAWN BY: JJC
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: ELEVATIONS ARCH BRIDGE OPTIONS

PROJECT: STACKPOLE CREEK BRIDGE
CITY OF SACO
SACO, MAINE

DATE
MARCH 2015

CONTRACT NO.
15-13

SHEET NO. S-3

REV. A